



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

May 18, 1994

Mr. Doug Watson
West State, Inc.
5555 N. Channel Ave., Bldg. 72
Portland, OR 97217

HAND DELIVERED

Dear Doug:

This letter concerns West State, Inc.'s failure to remove its dump boxes and other equipment from the berth and laydown areas at Berths 313/314 and 302/303.

My operations staff informs me that they have repeatedly asked WSI to remove the numerous and odorous dump boxes littering the laydown areas. Removal is required under Section 6.5 of Ordinance 366-R, and Section 4.5 of your Facility Agreement.

We have also had to ask WSI to remove sandblast equipment used on the Denali that still remains in the laydown area at Berths 313/314. Failure to promptly remove equipment after a project is a direct violation of Section 4.4 of your Facility Agreement, as well as a violation of Ordinance 366-R.

THIS IS NOTICE TO YOU THAT THESE DUMP BOXES AND SANDBLAST EQUIPMENT MUST BE REMOVED FROM THE LAYDOWN AREAS BY NO LATER THAN 5:00 P.M. MAY 25, 1994. The Facility Agreement provides that the Port may cause the removal of such items if you fail to do so, and you will be responsible for reimbursement of the Port's costs.

So that there will be no misunderstanding concerning which dump boxes and equipment are to be removed, I propose that you designate a WSI employee to meet with a Port Dockmaster to identify the exact items. Please contact me at your earliest convenience and I will arrange a meeting.

I await your prompt response.

Sincerely,



George P. McShea, Director
Portland Ship Yard

bc: Jeff Twine
Ralph Harwood
Suzanne Brooks
Cory Streisinger✓

Date: September 23, 1994
To: George McShea
From: Bernie Butler *BMB*
Subject: AUDIT REPORT - WEST STATE INC.

We have completed an audit of the 1993 Gross Billings Report sent to the Port of Portland (Port) by West State Inc. (WSI). The audit rating is *satisfactory except for* as gross billings reported to the Port by WSI are not complete and in accordance with the facility agreement. In addition, WSI has not submitted annual audited financial statements for 1993 as required by the facility agreement. The total amount of unreported gross billings is \$414,668. The impact to the Port is \$16,714 in facility fees. Below is a summary of the issues found during the audit. They are further discussed in the Findings and Recommendations section of this report.

- WSI assigned separate job numbers for the removal of hazardous material from several vessels while in the PSY for repairs. WSI argues that these jobs were not repair nor maintenance performed on the vessels and were, therefore, not subject to facility fees. The facility agreement states that a facility fee should be paid for all amounts charged for work performed at the PSY. The unreported gross billings amount to \$250,996 with an impact to the Port of \$10,117 in facility fees.
- WSI performed dry dock surveys and repairs on several vessels at the PSY and then moved the vessels across the river for additional repairs for which WSI did not report the gross billings. The operating agreement states that such work performed within 300 nautical miles of the PSY if part of the work is performed at PSY is subject to facility fees. The unreported gross billings amount to \$47,307 with an impact to the Port of \$1,907 in facility fees.
- WSI claims that they acted as a subcontractor for work performed on a vessel at the PSY. Lake Shore, Inc. and Avondale Industries, Inc. were hired by the vessel owner to be the primary contractors, which then hired WSI to perform work on the vessel. The facility agreement states that only Prime Ship Repair Contractors have authority to operate at the PSY or sub-contractors under the direction of Prime Ship Repair Contractors. The unreported gross billings amount to \$82,000 with an impact to the Port of \$3,325 in facility fees.
- WSI did not report the final gross billings generated from work performed on the Green Mountain State. The amount of gross billings not reported to the Port is \$33,865 with an impact to the Port of \$1,365 in facility fees.

We recommend that PSY Finance require WSI to report the gross billings associated with vessels discussed above and remit to the Port the proper fees. The management responses to the audit issues above are included in the Findings and Recommendations section after the discussion of each audit point. The responses adequately address our audit concerns.

INTRODUCTION

WSI is a major ship repair contractor located at the Portland Ship Yard (PSY). WSI has a facility agreement with the Port that was effective November 14, 1991. The agreement will continue through November 1, 1994.

Section 6.2 of the facility agreement requires WSI to submit a yearly Gross Billings Report to the Port. This report is to be submitted no later than ninety days from the end of WSI's fiscal year. WSI includes only the jobs that are subject to facility fees in its Gross Billings Report.

Port revenues from WSI are based on a Price Schedule Charge and a Facility Fee. The Price Schedule Charge is a charge for WSI's use of PSY dry docks and berthing facilities, cranes, utility services, and other services and facilities. The Facility Fee is 4.2% of WSI's gross billings generated by operations.

Port revenues from WSI included \$6.8 million in price schedule charges and \$3 million in facility fees for fiscal year 1993 and \$4.3 million in price schedule charges and \$1.8 million in facility fees for fiscal year 1994.

AUDIT OBJECTIVES AND SCOPE

The objective of this audit was to determine that the 1993 Gross Billings Report is accurate and complete.

In order to meet our objective, we:

- Obtained WSI's 1993 Gross Billings Report from PSY Finance,
- Performed a sequential number test on WSI's Job Log,
- Reconciled the Gross Billings Report with PSY's BIS system,
- Traced ten jobs from the Gross Billings Report to WSI's customer billings,
- Traced the customer billings to the accounts receivable customer trial balance report,
- Traced the customer payments on the accounts receivable customer trial balance report to wire transfer bank statements,
- Traced December 31, 1993, accounts receivable balance to the financial statements,
- Traced gross billings to the financial statements,
- Tested that no additional billings were performed on prior year jobs, and
- Traced facility fee credits received from PSY to proper supporting documents.

FINDINGS AND RECOMMENDATIONS

1. Unreported Gross Billings

Section 1.3 of the facility agreement defines gross billings as: "*all amounts charged by Contractor for work which is : (a) performed wholly within the PSRY; ... (including, without limitation, ship repair, maintenance, conversion or construction work and industrial fabrication work).*"

WSI assigns job numbers to vessels when work is performed. WSI then tracks the gross billings by job number and reports the appropriate jobs to the Port. The following is a list of vessels to which WSI assigned more than one job number and for which gross billings have not been reported completely to the Port. Only those job numbers and associated information not reported to the Port are listed.

<u>WSI Job #</u>	<u>Vessel</u>	<u>Job Date</u>	<u>Amount</u>
93-093	Chevron California	8/27/93 - 9/10/93	\$29,897
93-025	Chevron Colorado	3/29/93 - 5/24/93	13,375
93-118-001	Chevron Oregon	10/26/93 - 11/3/93	31,962
93-118-002	Chevron Oregon	10/26/93 - 11/3/93	13,687
93-037	Arco California	4/20/93 - 5/12/93	19,139
93-035	BT Alaska	5/7/93 - 5/18/93	80,195
93-080	Chevron Washington	7/31/93 - 8/5/93	37,428
93-097	Chevron Washington	9/12/93 - 9/17/93	25,313
Total Gross Billings			<u>\$250,996</u>
Facility Fee to Port			<u>\$10,117</u>

WSI assigned separate job numbers for removal of hazardous material from the above vessels while in the PSY for repairs. WSI argues that these jobs were for the removal of hazardous materials and that such work is neither repair nor maintenance performed on the vessels.

We believe that all amounts charged for work performed at the PSY, as stated by the facility agreement, should be reported and the related facility fees paid. Further, WSI included the facility fee of 4.2% in several of the invoices to the vessel owners implying that the fee was paid to the Port.

Recommendation

We recommend that PSY Finance require WSI to report the above gross billings to the Port and bill WSI for the related facility fees.

Management Response

Thank you for finding these unreported gross billings. PSY Finance has informed WSI of the unreported gross billings and has billed WSI for the related facility fees.

2. Work Performed Within 300 Nautical Miles of PSY

Section 1.3 of the facility agreement defines gross billings as "*all amounts charged by Contractor for work which is: ... (b) performed at a facility located within 300 nautical miles of the PSRY, if a part of the work was accomplished at the PSRY, in the course of the same repair/construction event, viewed as an integrated whole.*"

We found that WSI performed dry docking surveys and repairs on the following vessels in the PSY. The vessels were then moved to the Riverside Industrial Repair Yard across the river for additional repairs. WSI assigned separate job numbers to the work performed and did not report the gross billings of the jobs to the Port.

<u>WSI Job #</u>	<u>Vessel</u>	<u>Job Date</u>	<u>Amount</u>
93-084	BMC-29	8/5/93 - 9/17/93	\$32,952
93-127	Barge 396	11/24/93 - 11/30/93	9,030
93-141	DB Vulcan	12/16/93 - 12/22/93	<u>5,325</u>
		Total Gross Billings	<u>\$47,307</u>
		Facility Fee to Port	<u>\$1,907</u>

WSI maintains that the repairs were not performed at the PSY, therefore, the Port is not entitled to facility fees for the work performed. However, we believe that the Port is entitled to facility fees based upon section 1.3 of the facility agreement.

Recommendation

We recommend that PSY Finance require WSI to report the above gross billings to the Port and bill WSI for the related facility fees.

Management Response

PSY Finance has informed WSI of the unreported gross billings for work done at Riverside Industrial Repair Yard related to work done at PSY and has billed WSI for the related facility fees.

3. WSI Acting as Sub-Contractor

Section 1.3 of the facility agreement defines gross billings as *all amounts charged by the PSY primary ship repair contractors*. In addition, section 4.2 of the facility agreement states that the *Contractor agrees that work performed on vessels at the PSRY shall only be undertaken by Prime Ship Repair Contractors which have authority from the Port to operate at the PSRY or through subcontractors under the direction of Prime Ship Repair Contractors. This limitation shall not be interpreted to prohibit work to be performed by the ship owner's or operator's personnel. Contractor shall inform ship owners and their agents of the requirements of this Section.*

From 9/30/93 to 3/31/94, the vessel Tippecanoe was on lay-up status at the PSY. During this period, WSI assisted contractors hired by the vessel owner to perform work on the vessel. The gross billings of the assisted jobs were not reported to the Port.

WSI argues that Lake Shore, Inc. and Avondale Industries, Inc. were hired by the vessel owner to be the primary contractors to perform work on the vessel. WSI was acting as a sub-contractor and provided assistance to the two companies. WSI's sub-contractor's status is supported by all of their billing invoices which were addressed to the contractors.

<u>WSI Job #</u>	<u>Contractor</u>	<u>Job Date</u>	<u>Amount</u>
93-119	Avondale Industries, Inc	10/29/93 - 3/10/94	\$57,624
94-017	Avondale Industries, Inc	10/29/93 - 3/10/94	18,845
93-128	Lake Shore, Inc.	11/24/93 - 12/2/93	3,185
93-122	Lake Shore, Inc.	8/5/93 - 9/17/93	<u>2,846</u>
Total Gross Billings			<u>\$82,500</u>
Facility Fee to Port			<u>\$3,325</u>

We believe that the facility agreement requires WSI to be the Prime Contractor over work perform at the PSY or to direct the sub-contractors. The agreement does not allow WSI to be a sub-contractor.

Recommendation

We recommend that PSY Finance require WSI to report the above gross billings to the Port and bill WSI for the related facility fees.

Management Response

PSY Finance has informed WSI of the unreported gross billings for the Tippecanoe and has billed WSI for the related facility fees.

4. Unreported Gross Billings from the Green Mountain State

We found that \$33,865 of gross billings generated from work performed on the Green Mountain State (WSI Job #92-120) were not reported by WSI to the Port. The final billing invoice was dated May 7, 1993, with a final contract price for \$2,206,361. WSI reported to the Port \$2,172,496. It appears that WSI failed to report the additional gross billings to the Port when the final contract price was settled. The understatement of gross billings results in \$1,365 of related facility fees due to the Port.

Recommendation

We recommend that PSY Finance request that WSI report complete gross billings for the Green Mountain State and remit the appropriate fees to the Port.

Management Response

PSY Finance has informed WSI of the unreported gross billings for the Green Mountain State and has billed WSI for the related facility fees.

We would like to thank PSY staff for their help and cooperation during this audit.

cc: M. Thorne
R. Eggersgluss
E. Galligan
L. Jiang
M. Mullins
J. Smith
C. Streisinger
M. Wines
Coopers & Lybrand

#9317



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

February 25, 1994

Mr. Dick Whiteside
Manager, Marine Engineering
BP Oil Company
200 Public Square 22-2556-I
Cleveland, Ohio 44114

Re: Work Performed in the Portland Ship Yard

Dear Dick:

This letter concerns work being performed on your company's vessel, the SS Denali, currently under repair in the Portland Ship Yard. It has come to our attention that you may have contracted for a portion of this work directly with one or more companies who are not working as subcontractors or suppliers under the direction of a Prime Ship Repair Contractor.

The use of the Yard is governed by Ordinance No. 366-R of the Port of Portland, An Ordinance Regulating Activities at and Use of the Portland Ship Repair Yard (PSRY). Section 3.1 of this Ordinance states, "To sustain the operation of PSRY on a financially sound and environmentally responsible basis, use of and access to PSRY facilities and services for the purposes of vessel repair, maintenance, conversion, construction, or reconstruction, including the provision of associated supplies, equipment and raw or pre-fabricated materials, shall be limited to:

- (a) Prime Ship Repair Contractors;
- (b) Subcontractors and suppliers under the direction of a Prime Ship Repair Contractor;
- (c) Vessel owners' or operators' personnel
- (d) Providers of categories of ship repair supplies and services which, as determined by the Executive Director through Rules and Regulations, have customarily been provided in the Portland market directly by the service providers rather than through subcontract with Prime Ship Repair Contractors;
- (e) Others expressly authorized to use PSRY for such purposes pursuant to Rules and Regulations; and
- (f) Others expressly authorized to use PSRY for such purposes pursuant to an agreement with the Port in writing."

Mr. Dick Whiteside
February 25, 1994
Page 2


The enclosed Portland Ship Yard Rule entitled Provision of Ship Repair Services to Vessels has been promulgated relating to this provision of the Ordinance. Please note that Exhibit A of the Rule lists those types of services and supplies which may be provided directly to the vessel owner, pursuant to Paragraph (d), above. An example of a violation of the Rule would be boiler repair provided directly for the ship owner, as this category of service is not listed as an Authorized Service Provider.

A Prime Ship Repair Contractor performs repair work in the Yard under the auspices of a Facility Agreement, Section 4.2 of which states that "work performed on vessels at the PSRY shall only be undertaken by Prime Ship Repair Contractors which have authority from the Port to operate at the PSRY or through subcontractors under the direction of Prime Ship Repair Contractors. . . Contractor shall inform ship owners and their agents of the requirements of this Section." We can only assume that, in accordance with this requirement, you have been so informed by the Prime Ship Repair Contractor with whom you are working.

If we are made aware that this type of violation is continuing, we will take steps to bar from access to the Yard the company which is performing work directly for you as a vessel owner. Clearly, this would have a negative impact upon all parties.

I trust, therefore, that you will take any action necessary to achieve compliance with the Ordinance and Rule, now and in the future. Thank you for your attention and anticipated cooperation in this matter.

Sincerely,



George P. McShea, Jr.
Director, Portland Ship Yard

Enclosure

c: Doug Watson, WSI

PSY500005834



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

file - direct svcs
to vessels
BR : PSRY

February 25, 1994

Mr. V. Mervyn Short
Manager, Repair Teams
Maintenance & Repair
Chevron Shipping Company
555 Market Street
San Francisco, CA 94105

Re: Work Performed in the Portland Ship Yard

Dear Mr. Short:

This letter concerns work being performed on your company's vessel, the Chevron Mississippi, currently under repair in the Portland Ship Yard. It has come to our attention that you may have contracted for a portion of this work directly with one or more companies who are not working as subcontractors or suppliers under the direction of a Prime Ship Repair Contractor.

The use of the Yard is governed by Ordinance No. 366-R of the Port of Portland, An Ordinance Regulating Activities at and Use of the Portland Ship Repair Yard (PSRY). Section 3.1 of this Ordinance states, "To sustain the operation of PSRY on a financially sound and environmentally responsible basis, use of and access to PSRY facilities and services for the purposes of vessel repair, maintenance, conversion, construction, or reconstruction, including the provision of associated supplies, equipment and raw or pre-fabricated materials, shall be limited to:

- (a) Prime Ship Repair Contractors;
- (b) Subcontractors and suppliers under the direction of a Prime Ship Repair Contractor;
- (c) Vessel owners' or operators' personnel
- (d) Providers of categories of ship repair supplies and services which, as determined by the Executive Director through Rules and Regulations, have customarily been provided in the Portland market directly by the service providers rather than through subcontract with Prime Ship Repair Contractors;
- (e) Others expressly authorized to use PSRY for such purposes pursuant to Rules and Regulations; and
- (f) Others expressly authorized to use PSRY for such purposes pursuant to an agreement with the Port in writing."

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

Printed on recycled paper

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Mr. V. Mervyn Short

February 25, 1994

Page 2

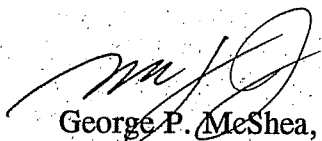
The enclosed Portland Ship Yard Rule entitled Provision of Ship Repair Services to Vessels has been promulgated relating to this provision of the Ordinance. Please note that Exhibit A of the Rule lists those types of services and supplies which may be provided directly to the vessel owner, pursuant to Paragraph (d), above. An example of a violation of the Rule would be boiler repair provided directly for the ship owner, as this category of service is not listed as an Authorized Service Provider.

A Prime Ship Repair Contractor performs repair work in the Yard under the auspices of a Facility Agreement, Section 4.2 of which states that "work performed on vessels at the PSRY shall only be undertaken by Prime Ship Repair Contractors which have authority from the Port to operate at the PSRY or through subcontractors under the direction of Prime Ship Repair Contractors. . . Contractor shall inform ship owners and their agents of the requirements of this Section." We can only assume that, in accordance with this requirement, you have been so informed by the Prime Ship Repair Contractor with whom you are working.

If we are made aware that this type of violation is continuing, we will take steps to bar from access to the Yard the company which is performing work directly for you as a vessel owner. Clearly, this would have a negative impact upon all parties.

I trust, therefore, that you will take any action necessary to achieve compliance with the Ordinance and Rule, now and in the future. Thank you for your attention and anticipated cooperation in this matter.

Sincerely,



George P. McShea, Jr.
Director, Portland Ship Yard

Enclosure

c: Doug Watson, WSI

PSY500005836



**PORT OF PORTLAND
SHIP REPAIR YARD**

PSRY INST 3210.2
OM
April 11, 1990

PSRY INSTRUCTION 3210.2

From: General Manager
To: Distribution
Subj: PSRY Facility and Reservation, Procedures for
Ref: (a) Temporary Rules for Reserving Drydock and Berthing
Facilities, Dated March 6, 1990
Encl: (1) PSRY Reservation Request

1. Purpose - This instruction provides PSRY staff, PSRY contractors, and ship owners and managers the method for scheduling and reserving facilities at the Portland Ship Repair Yard (PSRY) and further defines PSRY operation in accordance with Reference (a).

2. Background - PSRY is responsible for maximum facility use with minimum event interference. Previously, custom and practice set the scheduling and reservation process. The single controlling document was the PSRY Drydock and Berth Schedule. This instruction documents an improved schedule protocol and process.

3. Discussion - The following defines the major elements that will be required to facilitate the formalized scheduling system:

A. Schedulers: May enter the schedule and reservations procedure.

B. PSRY's Operations Manager: The PSRY coordinator of the berth and drydock schedule is the PSRY's Operations Manager or his authorized replacement.

C. PSRY Contractor Schedulers: Company officers will each nominate schedulers in writing in acceptable form, and may change schedulers in the same manner.

D. Schedule Events: Authorized schedule events may enter the schedule and reservation process. These events are berth usage, drydock usage, inbound, and outbound logistics events using the berths and drydocks. Events will be categorized as "tentative" and "definite", based on available verified event documentation.

E. Tentative Events: Events will be categorized as "tentative" when written documentation, in acceptable form has not been provided to PSRY stating that the project event to be scheduled is awarded to the scheduler. Tentative events will be placed but not confirmed on the Schedule.

F. Definite Events: Events will be categorized as "definite" when written documentation, in acceptable form has been provided to PSRY

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-1-

PSY500005837

PSRY Instruction 3210.2
April 11, 1990

stating that the project event to be scheduled is awarded to the scheduler. Definite events will be placed and confirmed on the Schedule.

G. Conversion of "Tentative" to "Definite": The scheduler may convert a tentative event to a definite event and receive confirmation by providing PSRY's Operations Manager with the required written documentation during the process. PSRY's Operations Manager will provide the Reservation Request

4. Documents - This section identifies the documents that will be used to schedule facilities at PSRY.

A. PSRY Schedule Reservation Request Form (Enclosure (1)): This form will be completed in detail, signed by the scheduler and submitted to PSRY. Written documentation enabling PSRY to categorize the event will be attached to this form.

B. PSRY Drydock and Berthing Schedule: PSRY will issue a revised and updated version of this document at least once a week to schedulers. Between issues, a markup copy will be available for review by schedulers in the PSRY scheduler's office during business hours.

5. Action - The following describes the scheduling process and flow consisting of Initiation, Placement, Interference Resolution, Confirmation, Modification, and Deletion.

A. Initiation: The scheduler will deliver Enclosure (1) completed in detail and deliver it to PSRY. PSRY's Operations Manager will time, date, and sign the form and return a copy to the scheduler.

B. Verification: PSRY's Operations Manager may seek direct and independent confirmation of the information provided by the scheduler.

C. Acceptance: Based on the information provided by the scheduler, PSRY's Operations Manager will accept or reject then verify and categorize the event as "tentative" or "definite". If the reservation form is rejected, a timed, dated, signed copy will be returned to the scheduler.

D. Prioritizing: PSRY's Operations Manager will prioritize the event in the Schedule based on the initiation time.

E. Placement: Based on the needs of the event and the current status of the Schedule, PSRY's Operations Manager will assign the event to a facility and place it on the Schedule.

F. Interference Resolution: If the event interferes with another, PSRY's Operations Manager will facilitate the process of resolution.

PSRY Instruction 3210.2
April 11, 1990

G. Facility arrangements will be provided to meet the desires of the contractor as possible. Contractors will identify preferred berths in the remarks section of Enclosure (1).

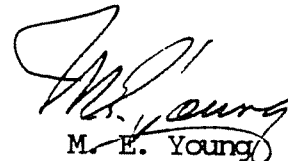
H. Resolution Measures: It is the responsibility of PSRY's contractors of the interfering events to come to a resolution satisfactory to PSRY's Operations Manager.

I. Confirmation: This is PSRY's undertaking to provide the facilities as reserved. Each definite event entered and resolved on the Schedule will be confirmed to the scheduler. PSRY's Operations Manager will time, date and sign a copy of Enclosure (1).

J. Minor Modification: After an event is scheduled and confirmed, the scheduler may need to make minor adjustments to the reservation. The scheduler will make the appropriate entries on Enclosure (1) and attach a written documentation in acceptable form.

K. Major Modification: In the opinion of PSRY's Operations Manager, when the modification to the Schedule is not minor, the reservation process will be referred to the Mitigation step. This will entail complete review of the event by all schedulers.

L. Deletion: After the event is completed it will be deleted from the Schedule.



M. E. Young

Disk: PSRYOM

Distribution

PSRY Managers
PSRY Contractors
PSRY Tenants

Disk: PSRYOM



Port of Portland

Ship Repair Yard

PSRY FACILITY RULE 5310.1
PSRY Director
January 21, 1992

PSRY Facility Rule 5310.1

TO: Distribution

FROM: PSRY Director

SUBJ: USE OF ALCOHOL/CONTROLLED SUBSTANCES ON PSRY PREMISES

Ref: (1) ORS 475.005(6)
(2) Port Ordinance 360

1. Purpose The purpose of this document is to establish a facility rule for the use of alcoholic beverages and controlled substances in Port offices and common areas of the Portland Ship Yard, including the contractors employee parking lot.

2. Background The Port of Portland is committed to maintaining a safe, healthful and productive work place in the shipyard. To this end, the Port is establishing the following facility rule to ensure a work environment that is free from the effects of drugs and alcohol that may impair job performance and jeopardize the safety of other employees.

3. Effective Date This facility rule shall be effective on February 5, 1992.

4. Rule No person shall consume, use or have in their possession an open container of an alcoholic beverage while they are on the common areas of the PSRY premises including the contractor employee parking lot and the Port offices.

No person shall distribute, sell, use or have in their possession controlled substances as that term is defined in ORS 475.005(6) while they are on the common areas of the PSRY premises including the contractor-employee parking lot as well as the Port offices.

As used above, "common areas" is meant to include all areas not otherwise subject to a lease between the Port and some third party.

5. Remedy In addition to any other criminal penalties, civil sanctions or remedies that may be available to the Port or other third parties, the first violation of this rule by any person shall be grounds for the immediate exclusion from the contractor-employee

parking lot of the violator's motor vehicle for a period of up to fourteen (14) days, and/or if appropriate, permanent loss of the use of any vehicle gate pass or parking privileges within the PSRY proper. In the event the violator's motor vehicle is found in either the parking lot or the yard proper during the applicable exclusion period, the motor vehicle will be subject to tow pursuant to the terms of Port of Portland Ordinance No. 360.

In the event that a person violates this rule a second time within a year of the first violation, in addition to the loss of the parking privileges set out above, that person shall be subject to exclusion from the common areas of the PSRY for a period of fourteen (14) days. In the event that a person violates the rule at any time thereafter, that person is subject to exclusion from the common areas of the yard permanently. In the event that a person who has been previously excluded from the common areas is found on the common areas during the exclusion period, that person shall be deemed a trespasser and subject to arrest for criminal trespass.

6. Appeal In the event that a person or their vehicle is excluded from the contractor-employee parking lot or the common areas of the PSRY pursuant to the enforcement of this rule, he/she may apply to the Director or the Director's designees for a waiver or mitigation of the exclusion or loss of the driving/parking privileges within the common areas of the PSRY. In making his determination, the Director or designee may take into account among other reasons, whether the person has violated this rule or other rules of the PSRY in the past, whether the person's employer has or will be imposing discipline as a result of the conduct leading to the violation, and/or whether the person is receiving treatment or counseling for the conduct.

ADOPTED BY THE PORT THIS _____ DAY OF FEBRUARY, 1992.

Bruce J. Robeson
Director, PSRY

Distribution

PSRY Contractors
PSRY Tenants
All Port Employees
PSRY Managers
Legal Department
Risk Management Department

89-001
OTC
file out CS 3/28/96

DATE: FEBRUARY 8, 1996

TO: ALL MARINE TENANTS AND CONTRACTORS

FROM: PADRAIC QUINN, MANAGER
ENVIRONMENT & SAFETY AFFAIRS
MARINE OPERATIONS

SUBJECT: CONFINED SPACE ENTRY PROGRAM

The Port of Portland Marine Department has recently developed and implemented a permit required confined space entry program. This Occupational Safety and Health Administration (OSHA) required program is intended to protect and inform Port employees of hazards associated with the various confined spaces at the Port's terminals. In addition, it will also serve as a baseline for all contractors, tenants or any other party intending to enter Port owned and operated confined spaces.

At this time, anyone conducting business on Port of Portland Marine facilities who will be entering a confined space must show proof of their company's confined space entry program, and they must adhere to the requirements of the Port's confined space entry program. With the proper training and this advance notice, you should have no problem with compliance.

If you would like to discuss the Port's program or need information prior to a scheduled confined space entry, please call me at (503) 240-2014.

Thank you for your understanding and assistance in making this program successful.

PSY500005842

**APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD**

August 9, 1995

Presented by: Cory Streisinger
General Counsel**FACTUAL BACKGROUND AND ANALYSIS**

This agenda item requests approval of a lease and related transactions with Cascade General, Inc. (Cascade), under which Cascade will operate and manage the Portland Ship Yard (PSY) on a sole contractor basis.

The proposed sole contractor arrangement with Cascade represents the culmination of the Port's efforts to restructure operations at PSY. These efforts began in 1993, with a worldwide search for an additional ship repair contractor to operate at PSY within the traditional multi-contractor format. In September 1994, Port staff advised the Commission that this search had not met expectations, and that the review of options for PSY was being expanded to include other possible structures. The investment banking firm of Kidder Peabody was retained to assist in this review of options. In December 1994, following review of recommendations from Kidder Peabody and staff, the Commission concluded that the Port should seek a single ship repair contractor for PSY.

Statements of interest were solicited from over 100 ship repair companies worldwide, and nine companies submitted statements of interest. A Request for Proposals was sent to each company expressing interest. Three proposals were received, from Cascade; National Steel and Shipbuilding Co. (NASSCO); and Todd Shipyards Corporation. Thorough discussions with each proposer followed, and each was given the opportunity to revise and clarify its proposal in response to Port questions and concerns. Final proposals were reviewed and evaluated by Port staff and the Commission, based on eight criteria: operational and management background and objectives; guaranteed financial return to the Port; length of initial contract term; financial strength; environmental and safety compliance; absence of contingencies; percentage or volume-based rent; and acceptance of Port contract terms. Based on this review, on May 24, 1995, the Commission directed the Executive Director and staff to negotiate with Cascade toward a sole contractor agreement.

The proposed sole contractor arrangement will be implemented through a lease of PSY; a Transition Agreement governing the period prior to commencement of the lease; a management agreement for Dry Dock 1; an assignment of a long-term lease with an existing tenant, Foss Environmental; a potential lease of submerged lands from the Division of State Lands, and an assignment of that lease to Cascade; an environmental management agreement; and a sale of certain PSY-related equipment to Cascade.

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 2

August 9, 1995

Lease of PSY

Terms of the proposed lease with Cascade are as follows:

- Premises: The Portland Ship Yard, consisting of approximately 92 acres of land, improved with paving, fencing, buildings, docks, roadways, tracks, utilities, and other structures and improvements; approximately 84 acres of Port-owned submerged lands; two Port-owned floating dry docks; seventeen whirley cranes; and other specified machinery and equipment necessary for the operation of PSY.
- Uses: Ship repair; ship conversion, new ship construction and layberthing of ships, subject to bond restrictions; metal fabrication, machine shops, and other specified industrial activities and support services; other industrial uses upon consent of the Port. Subleases are permitted upon specified sublease terms.
- Term: An initial term of five years, commencing January 1, 1996, subject to certain financial triggers being met and maintained by and after January 1, 1998.
- Extension Options: Two 5-year options plus one additional 15-year option. Exercise of the 15-year option is contingent upon Cascade obtaining annual gross revenues of not less than \$90 million for each of the three years preceding exercise, and annual gross revenues averaging \$95 million over those three years.
- Basic Rent: Minimum annual guarantee of \$5,833,000 through calendar year 2007, plus percentage rent equal to 4 percent of annual gross revenues between \$100 million and \$125 million; 3 percent of annual gross revenues between \$125 million and \$150 million; and 1 percent of annual gross revenues over \$150 million.
- Basic Rent After 2007: Calendar years 2008, 2009, and 2010, minimum annual guarantee of \$3 million plus percentage rent equal to 4 percent of annual gross revenues over \$80 million.
- Basic Rent During Fifteen-Year Option Period: Commencing 2011, minimum annual guarantee of \$3,600,000 plus 4 percent of annual gross revenues over \$95 million.
- Operation and Maintenance: Cascade will be responsible for all operation and maintenance, including major maintenance and capital projects; annual spending on capital projects will be at least \$2 million but not more than \$4 million, with CPI increase every five years.

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 3

August 9, 1995

- Port Construction Obligations:

- The Port will construct a river water system servicing Berths 312, 313 and 314, to enable river water rather than potable water to be used for washing ships. Estimated construction cost is \$575,000. Upon completion of construction, Cascade will pay the Port an additional \$75,000 per year for ten years for use of the river water system.
- The Port will complete construction of a water containment system for the dry docks, as required by environmental regulations. Estimated construction cost is \$1.1 million.

- Environmental Responsibility: Cascade will be responsible for environmental compliance and permitting during the lease term, as well as cleanup of any environmental contamination occurring during the lease term. In the event a cleanup of preexisting contamination is required during the lease term, Cascade will be responsible up to the maximum amounts of \$500,000 per year; \$1.5 million during the first five years; \$3.5 million during the first ten years; and \$10 million over the entire term of the lease.
- Security: Cascade will post a \$500,000 letter of credit and will grant the Port a first position security interest in equipment and other tangible assets. The Port will subordinate its security interest to a future lender acceptable to the Port. Beginning January 1, 1998, Cascade will meet specified financial covenants.
- Taxes: Cascade will be responsible for all taxes. Under recently-passed legislation, property taxes will be payable only on subleased space.
- Insurance: The Port will provide property insurance at Cascade's expense, and hull & machinery and protection & indemnity insurance (applicable to the dry docks) at the Port's expense. All other insurance will be provided by Cascade.
- Major Casualty: Cascade will have the right to terminate the lease early if particular cranes and dry docks are out of service for specified periods.
- Right of Exclusive Negotiation: In the event the Port wishes to sell PSY or Cascade wishes to buy it, the parties will negotiate in good faith for a 120-day period. However, nothing in the Lease commits the Port to sell or Cascade to buy.

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 4

August 9, 1995

Transition Agreement

Terms of the proposed Transition Agreement are as follows:

- Exclusive Use: The existing Facility Agreement and leases with Cascade will remain in effect until the commencement of the new lease, and Cascade will be the exclusive prime ship repair contractor during that period.
- Existing Tenants: The Port's month-to-month leases with existing tenants will be terminated as of the commencement date of the new lease. The parties will cooperate in facilitating those tenants' transition to subleases with Cascade. An existing long-term lease with Foss Environmental will be assigned to and assumed by Cascade.
- Operating Plans: Not later than October 2, 1995, Cascade will submit operating plans for Port approval, addressing operation of each of the major PSY functions.
- Environmental Agreement: Not later than September 15, 1995, the parties will enter into a separate Environmental Permitting and Management Agreement to address the details of environmental permitting and management of specific environmental issues.
- Port Options: If Cascade's proposed operating plans are unsatisfactory, or if required environmental permits cannot be obtained, or if the parties fail to reach agreement on the Environmental Permitting and Management Agreement, the Port will have the options of delaying the commencement date of the lease; allowing Cascade to operate under the lease with additional conditions; allowing Cascade to operate under the lease with the Port continuing to perform specified functions at Cascade's expense; or terminating the lease.
- Environmental Contingencies: Cascade will have until October 2, 1995, to complete environmental investigations, and may terminate in the event it finds a material adverse condition not previously disclosed.

Other Agreements

Several portions of PSY--specifically, Dry Dock 1 and the submerged lands on the lagoon side of PSY--are not owned by the Port. Use of these areas will be addressed as follows:

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 5

August 9, 1995

- Dry Dock 1: Dry Dock 1 is leased from the U.S. Government through January 31, 2000. Cascade will manage Dry Dock 1 on the Port's behalf for the remainder of that period. Under the terms of the proposed management agreement, the Port would continue to pay the cash rent (a minimum of \$102,000 per year, or volume-based rent if usage is high). Cascade would be responsible for all maintenance and upkeep, including a required dry-docking. The parties would cooperate to obtain a new lease of Dry Dock 1 following January 31, 2000, but the new lease would be at Cascade's expense.
- Submerged Lands: The submerged lands on the lagoon side of PSY are owned by the Division of State Lands (DSL). These lands have previously been used for ship repair purposes without a lease from DSL. In the event DSL requires a lease, the Port will negotiate a lease of the submerged lands for sublease or assignment to Cascade, at Cascade's expense.

Sale of Equipment

PSY is fully equipped for operation as a shipyard, and much of the existing equipment will be essential for the conduct of Cascade's business at PSY. The equipment has been divided into three categories, as follows:

- Essential equipment with an anticipated useful life exceeding the term of the proposed lease. This equipment will be included in the leased premises, and Cascade will be responsible for its maintenance and upkeep.
- Essential spare parts and inventory. Cascade will have the right to use the spare parts and inventory as necessary for maintenance and upkeep of PSY during the lease term, but will be required to replenish items as they are used, so that an equivalent inventory is returned to the Port upon lease termination.
- Equipment with an anticipated useful life not exceeding the term of the proposed lease. This equipment will be sold to Cascade upon Cascade's request. The remaining equipment will be transferred to other Port operating areas or sold as surplus.

The equipment to be sold has been valued by Port staff based on its condition and the prices which could be obtained at a liquidation sale. Under the proposed sale, Cascade would have the option to purchase any items at the Port's specified price. Cascade will be offered a lump sum price for consumables and small items which cannot cost-effectively be valued separately. Total price of the equipment offered to Cascade (including the consumables) is \$284,213.

A sale of this equipment to Cascade is unlikely to encourage favoritism because it results directly from Cascade's status as lessor of PSY. The sale is unlikely to substantially diminish competition because of the unique nature of PSY and the proposed sole contractor arrangement with Cascade. Much of the equipment to be sold is tailored to the needs of PSY,

PSY500005847

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 6

August 9, 1995

and cannot practically be used elsewhere. In addition, the selection of Cascade as sole contractor was made through a competitive selection process. Finally, the sale will result in substantial cost savings to the Port because the Port will obtain its anticipated liquidation-sale value for the equipment, without the expense of conducting an auction or sale. In addition, Cascade's ability to produce revenue for the Port will be enhanced by its access to this equipment. Based on the foregoing findings, the Commission, sitting as the Port's Contract Review Board, may grant a specific exemption from competitive bidding for this sale of equipment.

Port Ordinance

The Port's Ordinance No. 366-R, as amended by Ordinance No. 373-R, currently regulates activities at PSY. This ordinance may need to be amended or repealed in conjunction with the transfer of PSY to Cascade as sole operator. Staff expects to bring a recommendation to the Commission later this summer regarding action on Ordinance No. 366-R.

EXECUTIVE DIRECTOR'S RECOMMENDATION

The Executive Director recommends that the following resolutions be adopted:

BE IT RESOLVED, That approval is given to lease the Portland Ship Yard (PSY) to Cascade General, Inc. (Cascade), consistent with the terms presented to the Commission; and

BE IT FURTHER RESOLVED, That approval is given to enter into a Transition Agreement, Environmental Permitting and Management Agreement, Dry Dock 1 Management Agreement, lease of Division of State Lands submerged lands, and other related agreements and assignments, consistent with the terms presented to the Commission; and

BE IT FURTHER RESOLVED, That the Commission, in its capacity as the Port's Contract Review Board, approves the following findings:

- A sale of certain PSY-related equipment and materials to Cascade is unlikely to encourage favoritism because it results directly from Cascade's status as lessor of PSY;

APPROVAL OF SOLE CONTRACTOR AGREEMENTS WITH CASCADE
GENERAL, INC. - PORTLAND SHIP YARD

Page 7

August 9, 1995

- The sale is unlikely to substantially diminish competition because of the unique nature of PSY and the proposed sole contractor arrangement with Cascade. Much of the equipment and materials to be sold are tailored to the needs of PSY, and cannot practically be used elsewhere;
- The sale is also unlikely to substantially diminish competition because the selection of Cascade as sole contractor was made through a competitive selection process;
- The sale will result in substantial cost savings to the Port because the Port will obtain its anticipated liquidation-sale value for the equipment and materials, without the expense of conducting an auction or sale;
- The sale will also potentially result in substantial cost savings to the Port because Cascade's ability to produce revenue for the Port will be enhanced by its access to this equipment and materials; and

BE IT FURTHER RESOLVED, That the Commission, in its capacity as the Port's Contract Review Board, specifically exempts from competitive bidding the sale of certain PSY-related equipment and materials to Cascade; and

BE IT FURTHER RESOLVED, That approval is given to sell certain PSY-related equipment and materials to Cascade, consistent with the terms presented to the Commission; and

BE IT FURTHER RESOLVED, That the Executive Director or his designee is authorized to execute the necessary documents on behalf of the Port of Portland Commission in a form approved by counsel.

h6-
Cascade
Lease -
PSY
95,157

S **SHIPYARD SERVICES, INC.**

S *Subsidiary of Cascade General, Inc.*

I

December 21, 1995

TO: Prospective Vendor For Shipyard Services, Inc.

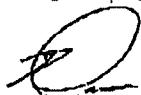
Shipyard Services, Inc. is a wholly-owned subsidiary of Cascade General, Inc. which begins operation on January 1, 1996.

The new corporation has been formed to take over and operate certain shipyard services previously supplied by the Port of Portland. As you may be aware, the Port will not continue to provide those services under Cascade's new long-term lease with the Port.

Shipyard Services, Inc. has no credit history. As an officer of both Cascade General, Inc. and Shipyard Services, Inc., I confirm Cascade General's corporate guarantee of payment regarding your sales to Shipyard Services, Inc.

Cascade's credit application data sheet is enclosed.

Very truly yours,



Bruce A. Dummer
V.P. Finance

PSY500005850



cc: Bob Neibert
Mic Donnan

file
CSC.G 95-157

LEGAL DEPARTMENT

96 DEC 16 AM 10:17

PORT OF PORTLAND

December 11, 1996

Cory Streisinger
General Counsel
Port of Portland
P.O. Box 3529
Portland, Oregon 97208

Re: Shipyard Services Inc.

Dear Cory:

You may recall that on January 1, 1996 we formed a wholly-owned subsidiary of Cascade General Inc. called Shipyard Services Inc.

We no longer have the need to continue the existence of that separate entity. Shipyard Services Inc. will cease to exist at the end of December, 1996 when it is liquidated up and into its parent company Cascade General Inc. in a Section 332 subsidiary tax-free liquidation.

Please contact me if you need any further information.

Very truly yours

A handwritten signature in black ink, appearing to be 'B. Dummer', written over a circular stamp or mark.

Bruce A. Dummer
V.P. Finance and Administration



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

LEGAL DEPARTMENT

95 DEC 28 PM 3:49

PORT OF PORTLAND

file
95-157
95-158

December 28, 1995

Mr. Dave Donaldson
Cascade General, Inc.
5555 N. Channel Ave., Bldg. 71
Portland, OR 97217

HAND DELIVERED

Re: Operating Plans -
Portland Ship Yard Lease

Dear Dave:

This letter concerns the Operating Plans ("Plans") submitted by Cascade General, Inc. as required by the Lease between Cascade and the Port of Portland and the Transition Agreement. The Port acknowledges receipt of signed copies and hereby approves the Plans.

Thank you very much for your assistance and cooperation. We look forward to working with you as we move ahead to the Commencement Date.

Sincerely,

Mic Dorrance

Mic Dorrance
Manager, Marine Capital Program

c: Frank Foti

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

Printed on recycled paper.

PSY500005852

bc: Mike Thorne
Ed Galligan
Cory Streisinger ✓
George McShea
Jeff Twine
Jeff Ring
Kathi Futornick
Marie Mullins
Suzanne Brooks

DTL: (1) DSL lease
(2) PSY lease
(Cascade)



December 21, 1999

Mr. Wayne Cozad
Cascade General, Inc.
P.O. Box 4367
Portland, OR 97208

Re: Division of State Lands Lease ML-10124
Notice of New Revised Waterway Lease Rules and Rates

Dear Wayne:

Enclosed is the latest correspondence from DSL concerning the lease at PSY. It requests that we choose the new lease rate from the two options available under the new rules, effective July 2, 1999. This new rate would be effective January 1, 2000. The old structure will still prevail for determining final rent due for 1999, and I understand the auditor has already scheduled an appointment with you for the audit.

I called Lori Warner to tell her that the Flat Rate payment will NOT be \$1,097,712.00. She picked up the acreage from the Cascade/Port lease, not the DSL lease acreage. The correct acreage is 18.472, and at the Flat Rate the rent would be \$241,392. As you can see, this would still be well in excess of what has been paid under the current rent structure.

The only way to get a rent amount less than \$241,392 is to provide evidence to Lori that the per square foot value of the adjacent upland is less than \$6.00 (\$6.00 x 5% is equal to the Flat Rate of \$.30). I talked to Mike Chamberlain, and he speculated that an average land value for tax accounts adjacent to the DSL lease area might be \$5.00/sf. This would cause the DSL rent to be \$201,160.

I will soon be contacting Lori to discuss determination of a land value to be applied to the lease. Please call me to discuss at your earliest convenience.

Thank you!

Sincerely,

A handwritten signature in cursive script, appearing to read 'Suzanne Brooks'.

Suzanne Brooks
Contracts Administrator
Property & Development Services

Enclosure

c: Cory Streisinger
Marie Mullins



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

December 20, 1996

Mr. Dave Donaldson
Cascade General, Inc.
P.O. Box 4367
Portland, OR 97208

Re: Division of State Lands - Submerged and Submersible Land Lease
ML-10124

Dear Dave:

This letter concerns the above-referenced lease between the Port of Portland and the Division of State Lands ("DSL"). I recently received a request from Mickey Schwinkendorf of DSL for information concerning berth usage in 1996. Please recall that the lease provides that the State may perform an annual audit of actual occupancy. At this point, they have not asked to perform an audit, but only requested that we provide them with berth usage information similar to that provided during the lease negotiations.

The charts we gave them listed the applicable berths, the number of days and percentage of occupancy. I have attached a sample copy for your information.

Please provide to me at your earliest convenience the actual berth occupancy data for 1996, and I will forward it to DSL.

If you have any questions, please feel free to call me at 731-7509.

Thank you very much for your prompt attention to this matter.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Property & Development Services

Enclosure

c: Cory Streisinger
Mic Dorrance
Marie Mullins

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

File ① DSL Lease
② Cascade Lease
95-157

LEGAL DEPARTMENT

96 DEC 20 PM 4:22

PORT OF PORTLAND

PSY BERTH OCCUPANCY					
Occupancy by Berth from 7/1/92 to 6/30/95					
Berth #		Days		% Occupied	
301		282		26%	
302		363		33%	
303		30		3%	
304		382		35%	
305		222		20%	
306		0		0%	
307		0		0%	
308		0		0%	
311		580		53%	



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

lease
file

95-157
or

M/PSY/Cascade
Gen

February 20, 1997

Mr. Dave Donaldson
Cascade General, Inc.
5555 N. Channel Ave., Bldg. 50
Portland, OR 97217

HAND DELIVERED

Re: LEASE - PORTLAND SHIP YARD
The Port of Portland and Cascade General, Inc. ("PSY Lease")

Dear Dave:

This letter concerns certain obligations of Cascade General, Inc. ("Cascade") regarding Dry Dock #1 and the Port's lease of submerged lands from the Division of State Lands ("DSL Lease").

The Management Agreement for Navy Dry Dock YFD 69 (Port of Portland Dry Dock #1) ("Dry Dock Agreement") requires that not later than February 1 of each year, Cascade provide the Port with records and reports concerning maintenance and repairs and Dry Dock usage. Despite repeated reminders and requests from Marie Mullins, Cascade has failed to provide this information, and the February 15 deadline for submission of a report to the Government as required by the Dry Dock Agreement has passed. Please recall that in Section 9 of the Dry Dock Agreement, Cascade indemnified the Port "for any and all fines, penalties, interest, late fees, and other costs attributable to any late reporting by Manager." The requested information must be submitted to the Port immediately.

Section 1.6.1 of the PSY Lease requires that Cascade "pay all rent required under the DSL lease." The Port invoiced Cascade for \$66,923.00 in December 1996 for rent due for 1997. Marie Mullins has requested and been promised payment on this invoice several times, yet it remains unpaid. Under Section 12.1.1 of the PSY Lease, Cascade is in default for failure to timely pay this amount; you must forward payment to the Port immediately. Also, DSL has audited the usage records for the berths included in the premises covered by the DSL Lease, and has notified the Port that \$91,072.00 in additional rent is due for 1996 and 1997, to be received by DSL no later than March 14, 1997. The Port will be forwarding an invoice to Cascade for this additional rent, and it will need to be paid immediately as well.

Dave Donaldson
February 20, 1997
Page 2

Cascade's failure to provide information as required and to pay amounts due under the PSY Lease causes the Port serious concern. We expect that you will take immediate action to cure these defaults.

If you have any questions concerning this letter, please contact me at 978-2410.

We await your prompt response.

Sincerely,

A handwritten signature in cursive script that reads "Mic Dorrance".

Mic Dorrance
Manager, Marine Properties
Port of Portland

c: Frank Foti
Bruce Dummer

PSY500005858

bc: Mike Thorne
Ed Galligan
Cory Streisinger
Suzanne Brooks
Marie Mullins
Jack Smith



Port of Portland

Box 3529, Portland, Oregon 97208, U.S.A.
503/231-5000

95-157

File-
PS4/
Cascade
lease

February 25, 1999

Mr. Wayne E. Cozad II
Sr. Vice President
Cascade General Portland Shipyard
5555 North Channel Avenue
Portland, OR 97217

SENT VIA FACSIMILE

Re: Overseas Juneau

Dear Wayne:

The Port has received your fax request to handle 16 containers on behalf of your customer Overseas Juneau. You have told us that Overseas Juneau has contracted with Stevedoring Services of America to provide the ILWU labor. This type of cargo activity is prohibited under the terms of your lease without Port consent. In this specific case, the circumstances are unique enough that the Port is willing to grant consent, although this should not be regarded as establishing a precedent. Your request is therefore approved.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Property & Development Services

c: Cory Streisinger
Mic Dorrance
John Hachey



file -
PSY/
Cascade
lease

February 25, 1999

Ms. Suzanne Brooks
Port of Portland
Box 3529
Portland, OR 97208

RE: Overseas Juneau Cargo Loading

Delivered via Fax

Dear Suzanne:

Cascade General, Inc. is requesting the Port's permission to allow the Overseas Juneau to enter the Portland Shipyard on or about February 25th for the purpose of loading approximately 16 containers of cargo. The loading operations will be handled by the longshoremen and is being arranged by the customer though Jones Stevedoring here in Portland.

Please review this request and respond back to us in writing as soon as possible so that we can relay your response to our customer. Thank you in advance for your consideration to this matter.

Sincerely,

Wayne E. Cozad, II
Sr. Vice President

WEC/tl

cc. Andy Rowe
Roy McKay



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

file-
PSY lease

LEGAL DEPARTMENT
97 MAY -1 AM 10:48
PORT OF PORTLAND

April 30, 1997

Mr. Wayne Cozad
Cascade General, Inc.
P. O. Box 4367
Portland, OR 97208

Re: PORTLAND SHIP YARD
BUILDING 72 UPGRADE

Dear Wayne:

Thank you for informing us of your plans to upgrade Building 72 to provide an employee cafeteria, locker rooms and additional office space. This letter is to inform you of the Port's preliminary approval to move forward on the project. Please send construction drawings to us for review by the Port's Engineering Department as soon as they are available. Also, as you are aware, copies of all required building permits must be forwarded to the Port prior to commencement of any work.

We understand that the estimated cost of this project is approximately two million dollars. Please be aware that the Port's approval in no way relieves Cascade of its obligation to perform the mandatory capital projects for 1997 as required by the Lease.

Please feel free to give Mic Dorrance or me a call if you have any questions.

Thank you for your cooperation and assistance.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Property & Development Services

/slb

bc: Ed Galligan
Cory Streisinger
Bill Bach
Mic Dorrance
Marie Mullins
Walt Haynes



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

M/PSRY/Cascade
Gen. -
Leased
Port
Ship
Yard

LEGAL DEPARTMENT

97 APR 25 AM 9:21

PORT OF PORTLAND

April 25, 1997

Mr. Frank Foti
Cascade General, Inc.
P. O. Box 4367
Portland, OR 97208

Re: PORTLAND SHIP YARD LEASE

Dear Frank:

This letter concerns the river water system at Berths 312, 313 and 314. The attached memorandum from A.T. Hjort of the Port's Engineering Department states that the project is operational and Cascade is utilizing the system. Section 1.7.2 of the PSY Lease states that "For the use of the river water system, Lessee shall pay the sum of seventy-five thousand dollars (\$75,000) per year as Additional Rent, payable in equal monthly installments of six thousand two hundred fifty dollars (\$6,250), commencing upon the Port's notice of completion of a river water system servicing Berths 312, 313 and 314, and continuing through the tenth anniversary of the first such payment."

Therefore, in May 1997 the Port will begin invoicing Cascade General for the monthly amount due.

If you have any questions, please feel free to call me at 731-7509 or Mic Dorrance at 978-2410.

Thank you for your cooperation and assistance.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Property & Development Services

Enclosure

c: Cory Streisinger ✓
Bill Bach
Mic Dorrance
Marie Mullins

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

PSY500005864

INTEROFFICE CORRESPONDENCE

DATE: APRIL 21, 1997
TO: MIC DORRANCE
FROM: A. T. HJORT *ATH*
CC: MIKE CARPENTER, FRANK BARRERO, KEN WEBER, MARIE
MULLINS, SUZANNE BROOKS
SUBJECT: PORTLAND SHIP YARD RIVER WATER SYSTEM FOR
BERTHS 312,313 AND 314
PROJECT NUMBER 22014

This will confirm that the subject river water pumping and distribution system is fully operational.

On March 3, 1997, the contractor, Hollinger Construction Company, informed the Port that the system can be operated. Cascade General was so informed on the same date. We understand that Cascade General is now utilizing the system.

Final acceptance of the project is pending receipt of O & M manuals and other contract close out documentation. In addition, sequencing of start-up of the pump station may need to be adjusted. We anticipate final acceptance will occur within the next month.

I:\HJORTT\WINWORD\DRIVMM04.DOC
ATH/ath

PSY500005865



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

file-
PSY lease

October 15, 1998

Mr. Wayne Cozad
Cascade General, Inc.
P. O. Box 4367
Portland, OR 97208

Re: PORTLAND SHIP YARD LEASE - Cargo Loading

Dear Wayne:

This letter concerns the loading of cargo which we understand took place at Portland Ship Yard ("PSY") recently. The Merchants Exchange log indicates that the grain vessel Champion was at Berth 312 at PSY August 31, 1998, and you and others have said that bags of grain were trucked into PSY and loaded onto the ship while at PSY.

The Lease clearly states in Section 1.4.2 that "Lessee shall not, without the express written consent of the Port, use or permit the use of any portion of the Premises for the loading or unloading of cargo, whether or not incidental to Lessee's ship repair business."

Consent of the Port was not requested for this activity. We learned after the fact from others involved that the cargo loading had taken place. This is a breach of the Lease that the Port takes very seriously, as it is one which can have an impact upon one of our core businesses.

We wish to emphasize that this is the same issue as that associated with Tyco Submarine Systems' cargo. In that instance, Cascade also initially failed to seek the Port's consent. Only after the Port learned of the situation and reminded Cascade of the Lease provision was consent ultimately requested and granted.

Please understand that Cascade risks being found in default if this provision is ignored again. We expect that in the future Cascade will strictly comply with the requirements of the Lease.

If you have any questions, please feel free to call me at 978-2410.

Sincerely,

Mic Dorrance
Manager, Marine Properties

c: Cory Streisinger
Suzanne Brooks
Marie Mullins
Bob Hrdlicka
John Hachey

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

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PSY500005866



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

the ① Cascade PSY base
② Cascade DD#1
mgmt. agmt.

April 15, 1997

Mr. Frank Foti
Cascade General, Inc.
P. O. Box 4367
Portland, OR 97208

Re: PORTLAND SHIP YARD LEASE
Management Agreement Navy Dry Dock YFD 69

Dear Frank:

This letter concerns the status of several obligations of Cascade General, Inc. under the Portland Ship Yard Lease ("Lease") and the Management Agreement for Dry Dock #1 ("Management Agreement"). We know it is important to you that Cascade stay in full compliance, so we wanted to bring to your attention several areas in which compliance has not been achieved. Please take any steps necessary to ensure that these areas are addressed.

Section 4.8 of the Lease requires that "Not later than March 1 of each year following the first year of the Lease Term, Lessee shall submit to the Port a report of all maintenance performed during the past Calendar Year and all work on Capital Projects performed during the past Calendar Year." Despite repeated requests by Port staff, this report has still not been submitted. Please ensure that this report is submitted to us no later than April 30, 1997.

Section 5.5 requires that "Not later than one year following the Commencement Date, Lessee shall remove the Port logo and all signage naming or identifying the Port from all buildings, equipment and other locations within the Premises." We have noticed that much of this removal has been accomplished. Please proceed with completion of this project at your earliest convenience.

Section 8.4.3 obligates Cascade to provide quarterly gross revenues reports and supporting information, "including such information as will enable the Port to determine the portion of Gross Revenues attributable to the Bond Financed Facilities." We understand that Jack Smith and Bruce Dummer are currently working on this issue.

Section 9 of the Management Agreement requires that "Not later than February 1 of each year, Manager shall provide the Port with records and reports as specified in this Section, in a form satisfactory to the Port." Records were submitted after the deadline by Cascade, but they still did not meet the Port's requirements. Port staff has requested that Cascade provide additional detail concerning the use of Dry Dock #1 for the period February 1, 1996 through January 31, 1997, but the information has not been forwarded. Please ensure that these reports are received by the Port no later than April 30, 1997.

Frank Foti
April 15, 1997
Page 2

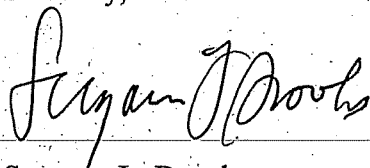
Another deadline contained in the Lease which has not occurred but is fast approaching is outlined in Section 4.7.2, which states that "not later than July 1 of each year during the Lease Term, Lessee shall submit to the Port for approval a proposed schedule (each, a "Work Schedule") of Capital Projects to be performed during the subsequent four Calendar Years." Please ensure that this Work Schedule is provided to the Port by July 1, 1997.

Finally, we understand that many of Dave Donaldson's duties are being transferred to Wayne Cozad, and that Dave will remain responsible for safety and environmental issues. We would appreciate having confirmation of this change in writing, and having more detail concerning their responsibilities so that we may communicate and work with the appropriate person.

If you have any questions, please feel free to call me at 731-7509 or Mic Dorrance at 978-2410.

Thank you for your cooperation and assistance.

Sincerely,



Suzanne L. Brooks
Contracts Administrator
Property & Development Services

/slb

c: Ed Galligan
Cory Streisinger
Bill Bach
Mic Dorrance
Marie Mullins



Port of Portland

Box 3529, Portland, Oregon 97208, U.S.A.
503/231-5000

file -
PSY/Cascade
lease

95-157

August 3, 1999

Mr. Wayne E. Cozad, II
Sr. Vice President
Cascade General Portland Shipyard
5555 North Channel Avenue
Portland, OR 97217

SENT VIA FACSIMILE

Re: TYCO Submarine Systems Ltd.

Dear Wayne:

The Port has received your fax request to handle 10 cable pans on behalf of your customer and tenant TYCO Submarine Systems Ltd. This type of cargo activity is prohibited per Section 1.4.2 of the PSY Lease without Port consent. You have informed us that TYCO has contacted Matson Shipping Co. to coordinate arrangements for longshoremen. In this specific case, the circumstances are unique enough that the Port is willing to grant consent, although this should not be regarded as establishing a precedent. Your request is therefore approved.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Property & Development Services

c: Bob Hrdlicka
Cory Streisinger
Mic Dorrance
John Hachey
Marie Mullins



5555 Narch Channel Avenue • Portland, Oregon USA 97217
(503) 285-1111 • www.casgen.com

FACSIMILE

DATE:	August 2, 1999	FROM:	Terry C. Lenhart
TO:	Suzanne Brooks	EMAIL:	Tlenhart@casgen.com
COMPANY:	Port of Portland	PHONE:	(503) 247-1487
FAX #:	731-7466	FAX #:	(503) 247-1431
PAGES:	3	CC:	
RE:	TYCO Submarine Systems, Ltd.		

Please see attached.

Sincerely,

CASCADE GENERAL, INC.

CONFIDENTIALITY NOTICE: The information contained in this facsimile message is legally privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copy of this facsimile is strictly prohibited. If you have received this facsimile in error, please notify us immediately by telephone and return the original message to us at the address above via the United States Postal Service. Thank you.

PSY500005870



August 2, 1999

Ms. Suzanne Brooks
Port of Portland
Box 3529
Portland, OR 97208

Delivered via Fax: 731-7466

RE: TYCO SUBMARINE SYSTEMS, Ltd. Cargo Loading

Dear Suzanne:

Cascade General, Inc. is requesting the Port's permission to allow TYCO Submarine Systems, Ltd. to receive a shipment of cargo from a barge at the Portland Shipyard on or about Wednesday, September 15th for the purpose of off loading approximately 10 cable pans. The unloading operations will be handled by the Longshoremen and is being arranged by TYCO.

I have attached TYCO's formal request to Cascade General to allow the performance of this activity for your perusal.

Please review this request and respond back to us in writing as soon as possible so that we can relay your response to our customer. Thank you in advance for your consideration to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. Cozad, II', written over the word 'Sincerely,'.

Wayne E. Cozad, II
Sr. Vice President

WEC/tcl

c: Mic Dorrance - Via Fax: 240-2009



5555 N. CHANNEL AVENUE
BUILDING 4, BAY 2
PORTLAND, OR 97217

July 27, 1999

Mr. Wayne Cozad
Cascade General Shipyard
5555 North Channel Ave.
Portland, OR 97217

Dear Mr. Cozad,

TYCO Submarine Systems Ltd. is expecting a barge carrying 10 cable pans to arrive at your facility on or about September 15, 1999. Five of the pans will contain cable and five are empty. A cable pan has a nominal diameter of 21 feet, a height of 7 feet maximum and weighs approximately 10 tons each. The heaviest of the five pans containing cable weighs approximately 56 tons. Fred Faria, Matson Shipping Co will coordinate arrangements for longshoremen.

I respectfully request you secure permission from the Port of Portland for this evolution to take place.

Sincerely,

A handwritten signature in black ink, appearing to read "David C. Hoard", written in a cursive style.

David C. Hoard
Depot Manager



Port of Portland

Box 3529, Portland, Oregon 97208 -
503/231-5000

95-157

file -
Cascade
Lease

May 14, 1996

Mr. Dave Donaldson
Cascade General
5555 N. Channel Ave., Bldg. 50
Portland, Oregon 97217

Re: Unloading Cargo
Portland Ship Yard Lease

Dear Dave:

This letter concerns the request for consent to unload cargo from the vessel, Wadi Sudr, submitted by Cascade General, Inc. as required by the Lease between Cascade and the Port of Portland. The Port acknowledges receipt of the signed request, dated May 13, 1996, and hereby approves the request.

Thank you for your assistance and cooperation.

Sincerely,

Mic Dorrance
Manager, Marine Capital Program

cc: Frank Foti

bcc: Mike Thorne
Cory Streisinger
Suzanne Brooks
Marie Mullins

Author: Dave Donaldson at Cascade_General

Date: 5/13/96 3:34 PM

Priority: Normal

TO: DORRAM@PORTPTLD.COM at Internet

Subject: Cargo Loading, Portland Ship Yard

----- Message Contents -----

TO: Mic Dorrance, Port of Portland Capital Projects Manager

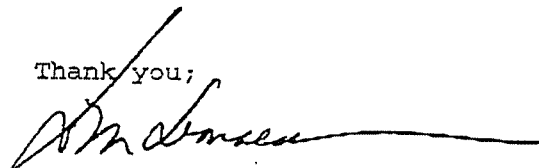
FROM: David M. Donaldson, Cascade General, VP Support Services

SUBJ: Cargo Loading, Portland Ship Repair Yard

REF: The Lease, Portland Ship Yard, Section 1.4.2 Limits on Use, Cargo:

1. As outlined in Section 1.4.2 of the Portland Ship Yard Lease between the Port of Portland and Cascade General, Inc., express writtem consent must be granted for the loading and unloading of cargo wether or not the cargo is incidental to ship repair or not.
2. We currently have the M/V WADI SUDR moored at B313 at the Portland Ship Yard after the vessel suffered severe damages to the rudder, rudder casting, rudder stock and steering equipment while loading cargo at the Port of Vancouver, USA.
3. In order to complete the repairs it will be necessary to unload the cargo of wheat currently loaded in all the tanks except the number 6 hold. The off loading operation has been contracted to Jones Stevedoring for longshore services. Cascade General will be placing a crance operator in all the cranes that the longshoremen operate to insure our/POP capital equipment is used properly and safely.
4. The operations are scheduled to begin at 4:00 AM on May 14, 1996 provided you have no objections.
5. All safety precautions and operations are being followed to insure compliance with applicable cargo rules.
6. The cargo will be off loaded to a vessel moored alongside the M/V SADI SUDR under the supervision of the Master and owner's representative.
7. It is requested that the Port provide the necessary consent for this operation and if you should have any further questions or concerns on theis issue, please contact me at 978 0322.

Thank you;



David M. Donaldson



November 17, 1999

Ms. Suzanne Brooks
Port of Portland
121 NW Everett
Portland, Oregon 97209

Subject: Cascade General, Inc.
Annual Environmental Certification
Portland Shipyard

Dear Ms. Brooks:

This letter provides the annual certification pursuant to Section 7.9 of the Lease for the Portland Shipyard between the Port of Portland and Cascade General, Inc. By this letter, Cascade General, Inc., as Lessee, certifies that from the period August 10, 1998 through August 10, 1999, it has not received any notice from any government agency regarding a violation of any environmental law except for the following notices (copies attached) to which it responded as indicated.

- In October 1998 Cascade General received a Notice of Violation from the U.S. Coast Guard for the release of 25 gallons of diesel fuel from a rented generator. The release was fully contained and mitigated. A civil penalty in the amount of \$500 was assessed and paid.
- In January 1999 Cascade General received a Notice of Violation from the U.S. Coast Guard for the release of 5 gallons of hydraulic oil that was blown onto surface water while draining from the stern tube of a vessel on Drydock 3. The release was fully contained and mitigated. A civil penalty in the amount of \$500 was assessed and paid.

Cascade General, Inc. certifies that it has in force all permits required under all Environmental Laws.

If you have any questions, please do not hesitate to contact the undersigned at (503) 247-1672.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Alan Sprott". The signature is fluid and cursive, with the first name "T. Alan" and the last name "Sprott" clearly distinguishable.

T. Alan Sprott
Director of Environmental Services

enclosure

cc: Wayne Cozad

PSY500005877



UNITED STATES COAST GUARD

TK 00046523

NOTICE OF VIOLATION

Coast Guard Unit Address

150 PORTLAND

6767 N. BASIN AVE

PORTLAND, OR 97217

Date and time of Violation: 0900 26 OCT 98 [est./known] NRC case #

Location of violation CASCADE GENERAL	Waterbody PIRWL	River mile	longitude	latitude	City PORTLAND	State OR
Party in Violation						
Name ALAN SPROTT	Title	Vessel	Flag			
Mailing Address CASCADE GENERAL 5555 N. CHANNEL AVE		VIN	Service			
City PORTLAND	State OR	Zip 97217	Facility CASCADE GENERAL			
Country U.S.	Postal Code	FIN 20024		Category		
Telephone (503) 247-1672	Party involved IPN		MMD/LIC	Issue port		

Discharge Violation

☒ OWNER, ☐ OPERATOR, OR ☐ PERSON IN CHARGE WAS FOUND IN VIOLATION OF

REGULATION

NATURE OF VIOLATION

VIOLATION NUMBER

PROPOSED PENALTY

☒ 33USC1321B(b)(3) Discharge of oil in violation of 2nd (1st, 2nd, or Unknown) \$ 500

Observed at

It was reported at

☒ sheen☐ film☐ sludge☐ emulsion

on

☒ a navigable water of the U.S.☐ an adjoining shoreline

The violation resulted from a discharge from a

☒ commercial☐ non-commercial☐ vessel☒ onshore facility☐ offshore facility

Spill violation in the past 12 months?

☒ Yes☐ No☐ Not considered

The estimated volume is

5 gal

Pollution Prevention Violation

REGULATION

NATURE OF VIOLATION

VIOLATION

(1st, 2nd, Unk.)

WARNING

PROPOSED PENALTY

<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$
<input type="checkbox"/> CFR					\$

TOTAL PENALTY

\$ 500.00

Incident Description WHILE USING A GENERATOR ON THE PIER, ONE OF THE WORKERS ACCIDENTALLY FILLED THE WRONG TANK SPILLING APPROX 25 GALS OF OIL ON THE PIER. SIGNS OF GASOLINE FUEL WERE NOTED ON THE PIER.

Issued by 1513 [Signature]

Date/Time 24 NOV 98 1500

Received by

Position

Date

DEPT. OF TRANSP., USCG, CG-5582 (9-94)

SN 7530-01-GF3-2770

VIOLATOR COPY

PSY500005878

DATE	VOUCHER NO.	REFERENCE	GROSS AMOUNT	CASH DISC.	NET AMOUNT
		Civil Penalties 500-960-200-5239 00046523			

CASCADE GENERAL (503) 285-1111

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED ABOVE.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED



CASCADE GENERAL
PORTLAND SHIPYARD

P.O. BOX 4367 PORTLAND, OREGON 97208

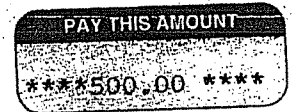
UNITED STATES NATIONAL BANK
OF OREGON
MAIN OFFICE, PORTLAND, OR
24-22/1230-010

NO. 10692

VENDOR NUMBER

DATE
11/13/98

CHECK NO.



PAY

Five Hundred Dollars & no/100 *****

TO
THE
ORDER
OF

US Coast Guard-Civil Penalties
M50 Portland
6767 N. Basin Avenue
Portland, OR 97217

⑈010692⑈ ⑆123000220⑆ 010 0660 182⑈

PSY500005879



UNITED STATES COAST GUARD

TK 00046563

NOTICE OF VIOLATION

Coast Guard Unit Address

MSC PORTLAND, OR
6767 N CASIN AVE
PORTLAND, OR 97201

Date and time of Violation: 29 JAN 97 1300 [est./known] NRC case #

Location of violation CASCADA GENERAL	Waterbody FIRVE	River mile	longitude	latitude	City PORTLAND	State OR
Party in Violation						
Name ALAN C. PROTT	Title	Vessel		Flag		
Mailing Address CASCADA GENERAL 5555 N. CHANAY AVE	VIN		Service			
City PORTLAND	State OR	Zip 97201	Facility FIN PDA 000000			
Country	Postal Code		Category			
Telephone (503) 247-1010	Party involved IPN		MMD/LIC		Issue port	

Discharge Violation

☐ OWNER, ☐ OPERATOR, OR ☐ PERSON IN CHARGE WAS FOUND IN VIOLATION OF

REGULATION NATURE OF VIOLATION VIOLATION NUMBER PROPOSED PENALTY

(1st, 2nd, or Unknown)

☒ 33USC1321B(b)(3) Discharge of oil in violation of \$

I observed a ☒ sheen ☒ sludge on ☒ a navigable water of the U.S.
It was reported a ☐ film ☐ emulsion ☐ an adjoining shoreline

The violation resulted from a discharge from a ☐ commercial ☐ vessel ☒ Yes
☐ non-commercial ☐ onshore facility ☐ No
☐ offshore facility ☐ Not considered

Pollution Prevention Violation

REGULATION NATURE OF VIOLATION VIOLATION WARNING PROPOSED PENALTY

(1st, 2nd, Unk.)

<input type="checkbox"/> CFR				\$
<input type="checkbox"/> CFR				\$
<input type="checkbox"/> CFR				\$
<input type="checkbox"/> CFR				\$
<input type="checkbox"/> CFR				\$
<input type="checkbox"/> CFR				\$
TOTAL PENALTY				\$

Incident Description

OIL DRAINING FROM FUEL TANK A 1000 GALLON FUEL TANK
DRAINING FROM FUEL TANK A 1000 GALLON FUEL TANK

Issued by

Date/Time

Received by

Position Date

DEPT. OF TRANSP., USCG, CG-5582 (9-94)

SN 7530-01-GF3-2770

BANK / DECLINE COPY

PSY500005880

DATE	VOUCHER NO.	REFERENCE	GROSS AMOUNT	CASH DISC	NET AMOUNT
02/10/99	10873	U.S. Coast Guard			\$500.00

CASCADE GENERAL (503) 285-1111

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED ABOVE
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.



CASCADE GENERAL

PORTLAND SHIPYARD

P.O. BOX 4367 PORTLAND, OREGON 97208

UNITED STATES NATIONAL BANK
OF OREGON
MAIN OFFICE, PORTLAND, OR
24-22/1230-010

NO. 10873

VENDOR NUMBER

DATE

CHECK NO.

02/10/99 10873

PAY

Five Hundred Dollars & No/100

TO
THE
ORDER
OF

U.S. Coast Guard

PAY THIS AMOUNT

\$500.00

⑈010873⑈ ⑆123000220⑆ 010 0660 182⑈

PSY500005881



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TLX: 474-2039

November 16, 1990

Ken Leahy Construction Inc.
915 S. 12th Ave.
Cornelius, Oregon 97113

LETTER OF AWARD - PORTLAND SHIP REPAIR YARD DECOMMISSION OF FLOATING DRY DOCK NO. 2

The Port of Portland Commission has accepted your proposal for the purchase of Floating Dry Dock No. 2 in the amount of \$190,000.

Enclosed are four copies of the Bill of Sale for said purchase. Please return three executed copies to the attention of Ron Stempel, Port of Portland, P.O. Box 3529, Portland, Oregon 97208.

One fully executed copy will be returned to you for your files along with a Notice to Proceed to begin the removal of the Dry Dock from Riedel International Inc. property.

THE PORT OF PORTLAND

Ron Stempel, Manager
Contracts & Procurement

Enclosures (4)

loaleahy

SECTION 09900
DRY DOCK REPAIR PAINTING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section describes the repair of paint damage resulting from the Contractor's operations during welding of plates and other attachments to the docks.
- B. In addition to the required exterior paint repair, the Contractor shall note that the interior surface areas of the docks are painted and shall also be responsible for the repair of any damaged interior paint.
- C. The Port has tested samples of the existing paint for lead. The test results will be available for review at the Port offices. None of the tests on the exterior surfaces of the three dry docks showed lead levels in excess of 10,000 ppm. Tests on the interior of Dry Dock 3 shows lead levels over 10,000 ppm. Assume, for bidding purposes, that the interior of Dry Dock 1 has lead levels over 10,000 ppm, and Dry Dock 4, less than 10,000 ppm. Consequently, this contract is to be bid based on lead control measures that the Contractor believes will be required based on the test results. The Contractor is solely responsible for evaluating the test results, conducting additional tests or evaluations deemed necessary by the Contractor, and determining the applicable safety precautions that should be observed by employees engaged in the work. The Contractor also is responsible for employing appropriate measures to prevent illegal air or water pollution under state and federal law. The Port holds no NPDES or air containment discharge permit that would allow discharge of lead into the water or into the atmosphere.
- D. All power tool cleaning shall be performed using vacuum attachments. The removed paint shall be considered hazardous waste (unless proven otherwise by testing) and shall be handled and disposed of accordingly.
- E. Interior spaces of docks are considered confined spaces. Make provisions required to work in confined spaces.

1.2 REFERENCED STANDARDS

SSPC	Steel Structures Painting Council
SSPC-SP1-82	"Solvent Cleaning"
SSPC-SP2-82	"Hand Tool Cleaning"
SSPC-SP3-82	"Power Tool Cleaning"

SSPC-SP11-89	"Power Tool Cleaning to Bare Metal"
SSPC-PA2-82	"Measurement of Dry Paint Thickness with Magnetic Gages"
SSPC-GUIDE 6I (CON)	"Guide for Containing Debris Generated During Paint Removal Operations"
SSPC-GUIDE 7I (DIS)	"Guide for the Disposal of Lead-Contaminated Surface Preparation Debris"

ISO International Standards Organization

ISO-850-1/ SIS 05 59 00	"Preparation of Steel Substrates Before Application of Paints and Related Products - Visual Assessment of Surface Cleanliness"
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ASTM American Society for Testing and Materials

ASTM D-4285	"Standard Test Method for Indicating Oil or Water in Compressed Air"
ASTM D-5064	"Standard Practice for Conducting a Patch Test to Assess Coating Compatibility"

Federal Regulations

29 CFR 1910.134	"OSHA, Respiratory Protection"
29 CFR 1910.141	"OSHA, Sanitation Standard"
29 CFR 1926	"OSHA, Occupational Safety and Health Regulations for Construction"
29 CFR 1926.59	"OSHA, Hazard Communication"
29 CFR 1926.62	"OSHA, Lead"
40 CFR 50	"EPA, National Primary and Secondary Ambient Air Quality Standards"
40 CFR 60, App A, Method 22	"EPA, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Fires"

DRY DOCK REPAIR PAINTING
09900-2

PSRY\95D161.D9
022196

PSY500005884

40 CFR 117	"EPA, Determination of Reportable Quantities for Hazardous Substances"
40 CFR 261	"EPA, Identification and Listing of Hazardous Waste"
40 CFR 262	"EPA, Standards Applicable to Generators of Hazardous Waste"
40 CFR 263	"EPA, Standards Applicable to Transporters of Hazardous Waste"
40 CFR 264	"EPA, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
40 CFR 268	"EPA, Land Disposal Restrictions"
40 CFR 302	"Designation, Reportable Quantities, and Notification"
40 CFR 302.6	"Notification Requirements"
40 CFR 355	"EPA, Emergency Planning and Notification"

1.3 PAINTING AT THE DRY DOCKS

- A. Avoid damage to cars, ships, yard tractors, trailers, nearby structures, equipment, freshly painted surfaces, or other areas during the performance of the work. The Contractor shall be responsible for any paint overspray or other forms of paint damage.
- B. Take such steps as are required to prevent air and water pollution.
 1. All waste generated during surface preparation operations shall be collected into open-top, 55-gallon drums provided by the Contractor and suitable for such services. The actual disposal of paint waste and residue shall be in accordance with all federal, state, and local environmental regulations. The Contractor shall submit all documentation verifying proper disposal.
 2. All accumulations of paint (including wastes) on the dock and surrounding area shall be cleaned up on a daily basis.
 3. All new unused paint and other waste material shall be handled and disposed of by the Contractor in accordance with

appropriate local, state, and federal environmental regulations.

- C. The Contractor shall be responsible for arranging for compressed air for use in surface preparation and painting operations.
- D. Storage and application methods shall incorporate applicable fire safety requirements.
- E. The Contractor shall install protective tarp on surrounding dock area to prevent paint drips and spills on dock.

1.4 SUBMITTALS

- A. Submit copies of the manufacturer's published product specification sheet and application requirements for each paint specified.
- B. Submit a work schedule.
- C. Submit a site-specific worker protection plan.
- D. Submit site-specific containment and disposal plans for hazardous wastes.
- E. Submit site-specific plans to comply with all provisions of the Clean Water Act.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The paints employed on the job shall be as specified in Articles 2.2, 2.3, 2.4, and 2.5 below.
- B. Multiple coats (if applicable) shall have one manufacturer's shade difference between coats.
- C. Note: Approved products shall be applied at the manufacturer's published recommended dry film thickness (DFT) rates. Additional coats may be required to achieve the specified final thickness requirements of this specification.
- D. Paint materials shall be delivered to the project in sealed, original, labeled containers bearing manufacturer's name, type of material, brand name, color designation, shelf life, batch number, and instructions for mixing and thinning. All containers of paint shall remain unopened until required for use.
- E. Paint, thinners, and solvents shall be stored in accordance with OSHA regulations and the requirements of the paint manufacturer. Paint shall be stored under cover out of direct sunlight, and the temperature maintained between 40°F and 90°F, unless the re-

DRY DOCK REPAIR PAINTING
09900-4

PSRY\95D161.D9
022196

PSY500005886

quirements of the manufacturer are more restrictive. The following precautions shall also be followed:

1. Provide the size and number of fire extinguishers in proper proportion to the quantity of paint stored.
 2. Do not permit smoking.
 3. Do not open or mix paints in the storage area.
 4. Do not return mixed paints to the storage area.
 5. Bulk containers of solvents and thinners shall be equipped with spring-loaded, self-closing, dispensing nozzles. Containers for transporting paint to mixing areas shall be Underwriter's Laboratories-approved.
 6. Bulk containers of solvents and thinners in the storage area shall be equipped with Underwriter's Laboratories-approved drum bung vents.
 7. Lighting shall be equipped with explosion-proof fixtures.
 8. Do not permit the accumulation of empty paint cans, combustibles, and other debris.
 9. MSDS sheets for all materials shall be maintained on file.
- F. Approved paint systems must include application requirements. Approval constitutes approval of the application requirements unless they conflict with these specifications; any conflicts will be resolved by the Engineer.
- G. Prior to painting, submit color chips for the Engineer's approval for all colors required under this contract.
- H. Storage methods shall incorporate applicable fire safety precautions.

2.2 COATING SYSTEMS FOR DRY DOCKS

A. System 1, Coal Tar Epoxy:

1. Surface Preparation: Prepare Surfaces per SSPC-SP11 - Power tool clean with vacuum attachments to bare metal with a minimum of 1 mil profile. Abrade surrounding coating.
2. Coating: Tnemec 46H-413 Hi-Build Tneme-Tar, at 16-20 mils dry film thickness.

B. System 2, Moisture Cured Urethane - Epoxy:

1. Surface Preparation: Prepare surfaces per SSPC-SP2 or SP3 - Hand or power tool clean with vacuum attachments to remove all loose paint and loose rust leaving a sound substrate.

2. Primer: Tnemec 50-330 Poly-Ura-Prime at 1.5-2.5 mils dry film thickness.
3. Finish: Tnemec Series 66 Hi-Build Epoxoline at 4.0-6.0 mils dry film thickness.

C. System 3, Organic Zinc - Coal Tar Epoxy:

1. Surface preparation: Prepare surfaces per SSPC-SP11 - Power tool clean with vacuum attachments to bare metal with a minimum of 1 mil profile. Abrade surrounding coating.
2. Primer: Tnemec 90-97 Tneme-Zinc at 2.5-3.5 mils dry film thickness.
3. Finish: Tnemec 46H-413 Hi-Build Tneme-Tar, at 16-20 mils dry film thickness.

D. System 4, High Build Polyamide Epoxy Coating System:

1. In accordance with Section 09800.

PART 3 - EXECUTION

3.1 SURFACE PROTECTION

- A. Remove, mask, or otherwise protect hardware, lighting fixtures, aluminum surfaces, nameplates, and other surfaces not intended to be painted.
- B. Take necessary precautions to protect all surfaces which have already received their final topcoat application from paint drips, runs, overspray, etc., when painting other areas with a different color paint.

3.2 SURFACE PREPARATION

- A. All surfaces to be painted shall be thoroughly cleaned of all rust, loose paint, mill scales, dirt, dust, oil, grease, corrosion of any nature, and all foreign substances detrimental to good paint adhesion. For specifics of surface preparation, see Coating Systems for Dry Docks, above.
- B. Take special care to clean all pockets, crevices, weld zones and areas behind webs, flanges and other hidden areas.
- C. Prepared surfaces shall be painted as soon as possible and prior to surface deterioration. In addition, paint all prepared joints by the end of the work day they were prepared.
- D. The surface of a given coat shall be thoroughly clean, inspected, and approved by the Engineer prior to the application of subsequent coats.

DRY DOCK REPAIR PAINTING
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E. Painting schedules and timing shall reflect surface preparation and paint system requirements per manufacturer's recommendations to ensure proper adhesion.

1. Prepared surfaces shall receive the prime coat as soon as possible and prior to surface deterioration.
2. Minimum and maximum time-between-coat requirements shall be met.

F. Compressed Air Cleanliness: The air supply used for blowing down the surfaces prior to painting shall be free from moisture and oil contamination. The air cleanliness shall be verified by the white blotter test in accordance with ASTM D 4285 at least once per shift for each compressor system. Sufficient freedom from oil and moisture is confirmed if soiling or discoloration are not visible on the paper. If air contamination is evidenced, the Contractor shall change filters, clean traps, add moisture separators or filters, or make such adjustments as necessary to achieve clean, dry air.

G. Ambient Conditions: Final surface preparation which exposes bare steel shall not be performed under damp environmental conditions or when the surface temperature is less than 5°F greater than the dew point temperature of the surrounding air.

3.3 PAINT SCHEDULE

A. Dry Dock No. 1 and 3:

Exterior Above Waterline	System 2	(See Coating Systems for Dry Docks, above)
Exterior Below Waterline	System 1	
Interior, Submerged	System 1	
Interior, Non-Submerged	System 4	

B. Dry Dock No. 4:

Exterior Above Waterline	System 2
Exterior Below Waterline	System 3
Interior, Submerged	System 3
Interior, Non-Submerged	System 4

3.4 MIXING AND THINNING OF COATING MATERIALS

- A. Paint to be mixed shall have been stored in accordance with the requirements of this specification and shall not have exceeded its shelf life. When required by the manufacturer, paints stored at less than 50°F shall be warmed to above 50°F prior to mixing.
- B. The mixing area shall be properly ventilated to prevent injury to workmen or the accumulation of volatile gases.
- C. Two-component materials shall be mixed in accordance with the requirements of the coating manufacturer. Two-component materials shall not be used beyond the pot life established by the manufacturer's written instructions. Partial mixing of kits is not permitted.
- D. Thinning of paints is permitted only if recommended by the manufacturer. Only those types and brands of thinner recommended by the coating manufacturer shall be used. The amount of thinning shall be in accordance with the manufacturer's requirements, and shall be limited to the amount necessary to facilitate application.

3.5 PAINT APPLICATION

- A. NO SPRAY PAINTING* shall be permitted at the dry docks work site. *See Article 1.1, paragraph C., above for exception.*
- B. Ambient Conditions: Coatings shall be applied under the following conditions unless the requirements of the coating manufacturer are more restrictive as indicated in the attached tables.
 - 1. Surface and Air Temperatures: Between 50°F and 120°F for catalyzed materials. In the event that these conditions cannot be maintained, the Engineer can provide advice regarding alternate low and high temperature coatings for certain applications.
 - 2. Relative Humidity: Less than 90 percent.
 - 3. Dew Point: Surface temperature shall be at least 5°F above the dew point temperature of the surrounding air.

DRY DOCK REPAIR PAINTING
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4. Coatings shall not be applied to surfaces containing frost or applied in rain, fog, or similar conditions.
 5. If the paint is exposed to unacceptable conditions (e.g. rain or dew) prior to adequate curing, it shall be removed and replaced.
- C. Paint storage, handling, mixing and application shall conform to the requirements of the paint manufacturer and these specifications; conflicts will be resolved by Engineer.
- D. Drying times between coats shall be carefully monitored to assure a good bond.
- E. Application shall be by brush or roller to a uniform thickness. All joints and crevices shall be filled and thoroughly coated. Runs, sags and holidays shall be brushed out. Manufacturer's recommendations shall be strictly followed.
-
- F. All bolts, crevices and other construction joints shall receive a double-pass of primer.
- G. Dry film thickness (DFT) shall be within the specified tolerances.
- H. The Contractor shall touch up all scratches or marred areas resulting from the performance of the work. This touch-up procedure shall include a prime coat if the damage went to bare steel.
- I. Ventilation: When applying coatings within enclosed areas, the area shall be well-ventilated to clear the air of volatile solvents evaporating from the coating material to prevent injury to the painters or surrounding personnel, or the accumulation of volatile gases.
- J. Coverage and Continuity:
1. All surfaces shall be painted with special attention to hard-to-reach areas such as between the legs of back-to-back angles.
 2. Each coat of paint shall be applied in such a way as to assure thorough wetting of the substrate. Shadow-through, pinholes, bubbles, skips, and misses are not acceptable. Runs or sags can be brushed out while the material remains wet.
 3. A stripe coat shall be applied to welds, crevices, bolt heads, edges, and other surface discontinuities when applying the prime coat.
 4. Overlap Onto Existing Coating: When spot painting or joining a new system to an existing one, the overlap onto

the existing material shall be feathered and controlled to less than 2 inches.

- K. Recoat Time and Cleanliness: Subsequent coats shall be applied only after the previous coat has been allowed to dry as required by the manufacturer's instructions, but as soon as possible in order to minimize exposure to intercoat dust and contamination. Any such surface contamination which is present shall be removed prior to the application of subsequent coats.
- L. Contrasting Colors: Successive coats shall be of sufficiently different color to facilitate proper coverage and to provide a distinction between coats.
- M. Coating Adhesion: All coats shall be well-adherent to each other, to the base metal, and to the existing system. If the application of any coat of paint causes lifting of the existing system, or of an underlying coat, the coating in the affected area shall be removed to adjacent sound, adherent coating, and the material reapplied.
- N. Dry Film Thickness:
 - 1. Ferrous and Non-Ferrous Metal Substrates: The thickness of each coat applied to metal substrates shall be measured using non-destructive dry film thickness gages. The calibration of the gages and frequency of thickness measurements on steel substrates shall be in accordance with SSPC-PA2. Calibration and use of eddy current gages for non-ferrous metal substrates shall be in accordance with ASTM D 1400. In the case of a dispute regarding the coating thickness applied, a Tooke Gage (destructive scratch gage) can be used, but only to the extent required to resolve the problem. Damage to the coating created by the Tooke Gage shall be clearly marked and identified for touch-up by the Contractor. The thickness requirements per coat shall be as specified.

3.6 LEAD REMOVAL AND DISPOSAL

- A. The Contractor is required to use a method of coating removal that minimizes the generation of hazardous waste and does not exceed the maximum allowable under 40 CFR 262.
 - 1. Special Requirements:
 - a. Containment: Unless vacuum attachments are used with power tools, the Contractor shall use a containment system equal to Class 3 as outlined in the SSPC-Guide 61 "Guide for Containing Debris Generated During Paint Removal Operations." This shall include fully sealed joints and overlapped entry ways with open make-up air. A negative air pressure system shall be used with the forced exit air flow being drawn into a dust collector

system. Class 5 containment will be required with the use of vacuum attachments.

- b. Ambient Air Quality - Visible Emission: Visible emissions shall be used as a criteria for project shutdown until corrections to the containment are made. Visible emissions shall be determined in accordance with 40 CFR 60, Appendix A, Method 22. Visible emissions from project activities are restricted to no more than 3 minutes in one hour. This is equivalent to an SSPC Level 2 in accordance with Guide 6I (Con).

- c. Worker Protection:

- (1) OSHA requirements for worker protection shall be followed in accordance with 29 CFR 1926.62 per OSHA Construction Standard.

- (2) Furnish all workers with appropriate respirators approved by the NIOSH, Department of Health and Human Services, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1910.1025 and shall be equipped with High Efficiency Particulate Air (HEPA) filters. All filters shall be rated PM-10.

- (3) Furnish personnel who will be exposed to lead-contaminated dust with appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Furnish appropriate disposable plastic or rubber gloves to protect hands.

- d. Worker Protection Program: The Contractor shall submit the following worker protection program for approval prior to starting work:

- (1) Exposure Monitoring: A written program for determining the level of airborne lead within and around the lead paint removal area. Monitoring shall be performed in accordance with NIOSH Method 7082 using personal pumps on representative workers.
 - (2) Compliance Program: A written compliance program to describe the engineering, administrative, housekeeping, and protective equipment controls that will be utilized to reduce the exposure of the employees to a level less than the permissible exposure limit (50 ug/m).
 - (3) Respiratory Protection Program: A respiratory protection program as required by 29 CFR 1910.1025 and 29 CFR 1910.134.

- (4) Personal Hygiene: A description of the personal hygiene facilities and practices to be used, and protective clothing controls.
- (5) Medical Surveillance Program: A medical surveillance program including the mechanism for submitting prejob and postjob blood lead level results, and a statement that employees will be removed from the work site if blood lead levels exceed the thresholds established in 29 CFR 1910.1025.
- (6) Employee Training: A copy of the employee training program in accordance with the requirements of 29 CFR 1910.1025.
- (7) Employee Access To Records: A statement that the employee has been informed of the hazards on the project, and of his or her right of access to exposure and medical records as required by 29 CFR 1926.
- (8) Hazard Communication: A copy of the hazard communication program as required by 20 CFR 1926.59.
- (9) Signs: A statement confirming that signs with the following legend will be posted in and around the work area:

WARNING
LEAD WORK AREA
FROM THIS POINT ON
NO SMOKING OR EATING

e. Transportation and Disposal of Debris:

- (1) The Contractor shall arrange to have the debris transported from the site in accordance with the requirements of 40 CFR 262 and 263, and disposed of properly in accordance with 40 CFR 264 and 40 CFR 268. Signed manifests shall be submitted to the Engineer to verify that all steps of the handling and disposal process have been completed properly.
- (2) Written confirmation that the debris will be treated and disposed of in accordance with requirements of 40 CFR 264 and 40 CFR 268 shall be received by the Engineer prior to start of the work. The programs shall provide assurance that the debris is handled and disposed of properly and include the necessary notifications and certifications on shipments, provide the name of

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the disposal facility, and include a schedule for the submittal of the completed manifests to the Engineer.

- (3) Disposal of lead paint materials shall be by incineration or other approved method of treatment/stabilization. All movement of the red lead paint materials, from the site to the final disposition, shall be documented with Hazardous Waste Manifests and any other necessary documentation. Certificates of Destruction (treatment) shall be submitted to the Engineer upon incineration (treatment) of the red lead paint material.

f. Method: Removal of lead paint shall be accomplished by a method that does not expose the workmen to lead nor allow lead to be released into the environment.

g. CERCLA Release: The Contractor is advised that the discharge of one or more pounds of lead into the atmosphere, water, or soil within a 24-hour period is considered a reportable release in accordance with 40 CFR 300 and 40 CFR 302.

h. The Contractor shall comply with all federal, state, and local regulations which apply to lead removal, handling, storage, and disposal.

3.7 WATER QUALITY

A. General

1. The Contractor shall comply with all provisions of the Clean Water Act. Lead paint debris is not allowed to enter bodies of water or storm sewers.
2. The Contractor shall develop a written program which effectively and clearly communicates that releases of lead into bodies of water or storm sewers are prohibited. The program shall include provisions for suspending work if spills or emissions are observed entering into bodies of water, or found in areas where storm water run-off could carry the debris into bodies of water or storm sewers. The program shall also address clean-up and reporting procedures. Generic statements shall not be used. Specific methods, procedures, and details are required.

B. National Pollutant Discharge Elimination System (NPDES) Permit

1. The Contractor shall conduct project activities so that no releases of debris into bodies of water or storm sewers are planned or permitted to occur. Therefore, NPDES permits are not required for the project.

C. Reporting

1. Releases or spills of lead paint debris that carry into waterways or storm sewers shall be thoroughly documented and the Engineer shall be notified immediately. The documentation shall include at a minimum the time and location of the release, amount of material released, actions taken to clean up the debris, amount of debris recovered, and corrective action taken to avoid a reoccurrence.
2. Reportable Quantity Under Clean Water Act - Any releases of lead paint debris into waterways, in reportable quantities of hazardous substances as designated pursuant to Section 311 of the Clean Water Act, shall be reported to the EPA in accordance with 40 CFR 117 and 40 CFR 355.
3. If a release in a 24-hour period exceeds the CERCLA reportable quantity, the Contractor shall comply with 40 CFR 302 and 40 CFR 302.6. Work shall be suspended, and the Contractor shall immediately notify the Engineer.

3.8 TESTING AND INSPECTION

- A. In addition to the Work Progress Schedule defined in the General Conditions, Engineer shall be apprised of day-to-day surface preparation and paint schedules.
- B. All prepared surfaces shall be inspected and approved prior to the application of any primer or paint. Any painting applied over uninspected surfaces shall be rejected.
- C. Any formation of rust or adhesion of dust, dirt, or other contaminants after acceptance of the prepared surface and prior to painting shall be removed or be subject to rejection.
- D. Each coat must be inspected, tested for dry film thickness with Elcometer Instruments, Inc., Model III magnetic inspector thickness gauge, or other approved thickness gauge, and approved prior to application of subsequent coats.

3.9 ANNIVERSARY INSPECTION

- A. A one-year anniversary inspection will be conducted approximately eleven months after the completion of the repair painting.
- B. At any locations where the Contractor has disturbed the original coating and the new coating exhibits disbonding, blistering, cracking, rusting, or other such defects, these areas shall be repaired by the Contractor at no added cost to the Port. All repairs shall be performed in accordance with this specification and the coating manufacturer's written instructions.

3.10 CLEANUP

- A. Clean and suitably restore all accidentally painted surfaces, droppings, etc., after completion of the work to the satisfaction of the Engineer and remove all materials and debris.

END OF SECTION



Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TLX: 474-2039

September 27, 1990

Mr. William Johnston
Vice President
Northwest Marine Inc.
5555 North Channel Avenue
Portland, OR 97217

EXTENSION OF USE AGREEMENT

Dear Bill:

Pursuant to Paragraph 1 of the Extension Agreement dated June 29, 1990, between the Port of Portland and Northwest Marine Inc., and your request for a further extension, the Port agrees to extend the use agreement with Northwest Marine Inc. through October 31, 1990.

Yours very truly,

Robert L. Woodell
Executive Director



Port of Portland offices located in Portland, Oregon, U.S.A., Boise, Idaho, Chicago, Illinois, Washington, D.C., Hong Kong, Seoul, Taipei, Tokyo

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Port of Portland

Box 3529 Portland, Oregon 97208
503/231-5000
TLX: 474-2039

September 27, 1990

Mr. Douglas Watson
West State, Inc.
5555 North Channel Avenue
Portland, OR 97217

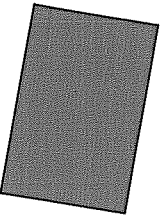
EXTENSION OF USE AGREEMENT

Dear Doug:

Pursuant to Paragraph 1 of the Extension Agreement dated June 29, 1990, between the Port of Portland and West State, Inc., and your request for a further extension, the Port agrees to extend the use agreement with West State, Inc., through October 31, 1990.

Yours very truly,

Robert L. Woodell
Executive Director



Port of Portland offices located in Portland, Oregon, U.S.A., Boise, Idaho, Chicago, Illinois, Washington, D.C.,
Hong Kong, Seoul, Taipei, Tokyo

PSY500005899

August 24, 1990



Mr. Tuck Wilson, Esq.
Port of Portland
Legal Department
P. O. Box 3529
Portland, OR 97208

Re: WSI Extension Agreement

Dear Tuck:

In response to your letter of August 21, 1990, please extend the Use Agreement between the Port and WSI through September 30, 1990. We are hopeful the negotiations can be concluded by that date.

In this regard, WSI is awaiting your amendment to the proposed tariff and facility fee based upon the unexpectedly large cost increases (up to 22%) contained in your initial proposal. Also, we have not received your financial consultant's report concerning the Port's financial statements for fiscal year 1989-1990 and a capital expenditures historical report and budget.

We reiterate our request for the Coopers & Lybrand fee and tariff analysis which was originally to be made available to us after the May 7th meeting of the contractors and the Port.

Very truly yours,

Russell L. House
(MLH)

Russell L. House
General Counsel

RLH:mlt

WEST STATE, INC.
MARINE, INDUSTRIAL REPAIRS AND CONVERSIONS
8655 N. CHANNEL • BLDG. 72 • PORTLAND, OR 97217 • (503) 285-9706
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PSY500005900



APPROVAL OF SHIP REPAIR YARD USE AGREEMENT AMENDMENT NO. 1
AND TARIFF NO. 37 - PORTLAND SHIP REPAIR YARD

Date: January 9, 1985

Presented by: Charles H. McKeown, Manager
Portland Ship Repair Yard

FACTUAL BACKGROUND AND ANALYSIS

Two documents control the fees paid by private prime ship repair contractors to the Port of Portland for services performed at the Portland Ship Repair Yard. They are:

- o Ship Repair Yard Use Agreement first approved by the Port Commission in July 1982 and effective until June 30, 1986. It provides for PSRY charges per a shipyard tariff and a 1.4 percent Use Fee for the restoration of the old ship yard. In May 1983, the Port Commission approved a suspension of the fee due to heightened competition. The suspension was subsequently extended to December 31, 1984, and has now expired.
- o Portland Ship Repair Yard Tariff No. 36 was published in February 1978 with its last general increase in February 1980. Tariff No. 36 proved adequate during the high volume period experienced between 1979 and 1982. In 1983, ship repair volume, as measured in ton days fell to 3.8 million from the 10.0 million experienced in 1982. In May 1983, the Port Commission approved a 30 percent discount of Tariff No. 36 due to the poor state of the industry. The Port has further reduced its charges based on the specific competitive situations. The 30 percent discount program was also extended to December 31, 1984, and has now expired.

The competitive situation has led to the development of a new tariff concept in cooperation with the prime ship repair contractors. Our objectives have been to:

- o Restore PSRY revenues to near pre-discount levels and provide for a cash flow breakeven at approximately \$100 million in combined shipyard revenues.
- o Enhance the partnership concept between PSRY and the private contractors.
- o Address the shipowner's price resistance to the PSRY Tariff so that Port charges are not major points of dispute.
- o Add flexibility to the tariff structure to allow for adjustments based on competitive pressures.

Approval of Ship Repair Yard Use Agreement Amendment No. 1
and Tariff No. 37 - Portland Ship Repair Yard
Page 2
January 9, 1985

- o Develop an incentive structure to encourage an increase in volume.
- o Make the tariff more market-oriented.
- o Simplify the administration, thereby reducing costs.

Staff proposes two major changes--Amendment No. 1 to the Ship Repair Yard Use Agreement and a new Tariff No. 37.

Ship Repair Yard Use Agreement Amendment No. 1

- o Extends the term of the Agreement to June 30, 1990, to match the proposed Restoration Account capital program.
- o Continues the 1.4 percent Use Fee (renamed Restoration Fee) for the old yard rehabilitation.
- o Adds a new unrestricted 4.3 percent Use Fee to supplement a reduced Tariff No. 37.
- o Amends the basis for charging the fees, allowing for negotiation of fee applicability to such things as "pass through" costs.

Portland Ship Repair Yard Tariff No. 37

- o Provides reduced rates and a simplified format for ease in contractor bidding and Port administration with nine rate schedules:
 1. Vessels under 3,000 GRT or less than 200 ft LOA.
 2. Vessels over 3,000 GRT.
 3. Vessels without a GRT and greater than 200 ft LOA.
 4. Shoreside dry-docking.
 5. Ballast water treatment plant.
 6. Utilities.
 7. Cranes and equipment.
 8. Miscellaneous rates.
 9. Labor and materials.
- o Provides for a new "no fault" damage policy covering the first \$25,000 of damage to the Port's dry docks and berths.

Approval of Ship Repair Yard Use Agreement Amendment No. 1
and Tariff No. 37 - Portland Ship Repair Yard
Page 3
January 9, 1985

The proposed Use Fee and Tariff revisions will restore PSRY revenues to within 95 percent of the pre-discounted levels and will provide a cash flow breakeven at \$100 million in combined shipyard revenues and a net breakeven at \$140 million.

This item also asks Commission approval to delegate to the Executive Director the authority to adjust specific rates or make limited modifications to the concept, as necessary. The Executive Director will continue to be delegated the authority to make discounts from published tariff rates based on additional competitive factors and interport differentials. These discounts and any changes will be the subject of additional reports to the Commission.

This item has been reviewed and approved by the Construction and Operations Committee.

EXECUTIVE DIRECTOR'S RECOMMENDATION

RESOLVED, That approval is given to amend the Ship Repair Yard Use Agreements with Northwest Marine Iron Works, Dillingham Ship Repair, Crosby and Overton, Marine Ways, Pacific Marine Repair, FMC, Northwest Tank Service, and L & S Marine, effective January 9, 1985, to extend the term to June 30, 1990, add a new 4.3 percent Use Fee and provide for negotiated application of fees; and

BE IT FURTHER RESOLVED, That Portland Ship Repair Yard Tariff No. 36 is terminated effective January 9, 1985, with the exception of bids grandfathered with specific approval of the Executive Director and long-term agreements approved by the Port of Portland Commission that specify use of Tariff No. 36; and

BE IT FURTHER RESOLVED, That Portland Ship Repair Yard Tariff No. 37 is effective January 9, 1985; and

BE IT FURTHER RESOLVED, That the Executive Director is specifically delegated the authority to adjust specific rates, make limited modifications or provide discounts and report such to the Port Commission on a regular basis; and

BE IT FURTHER RESOLVED, That the appropriate officers are authorized to execute the necessary documents in a form approved by counsel.

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October 9, 1990

Mr. Bill Supak, Deputy Executive Director
Port of Portland Commission
P.O. Box 3529
Portland, Oregon 97208

Dear Mr. Supak:

I am taking this opportunity to correspond with you because I am concerned you may have misgivings or misunderstandings about WSI. I have enclosed a summary of our company, its past and future. I hope you take the time to review this summary because I believe it will help you understand what we are trying to accomplish.

I am sure you are aware of our pending lawsuit with the Port as well as the ongoing Tariff negotiations. You may have formed opinions about our position in these matters. I cannot discuss the merits of the litigation other than to say that our lawsuit has merit and from a businessman's perspective, needed to be filed.

I would like to address more directly the state of the Tariff negotiations. I was compelled to write this letter after appearing before the Port Commission on September 12th. This was the first opportunity I had to address the Commission since starting up WSI in the fall of 1986. Before speaking, I was advised to limit my comments to five minutes. I had five minutes to address substantial concerns in a formal setting without the opportunity for a frank and open discussion. I knew at that point WSI had lost touch with the Commission and the Commission had lost touch with WSI. I am hopeful this letter and our joint contractors' meeting with a subgroup of the Commission on September 28th will begin the process of normalizing a relationship which is of critical importance to the community and to WSI.

WEST STATE, INC.

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PSY500005904

I would like to summarize for you why the relationship between WSI and the Port of Portland is critical to the community.

1. We are an Oregon grown company which started from scratch four years ago; realized from the availability of a first class facility and the push of an entrepreneur who knows ship repair.
2. We have grown despite predictable financial problems and an industry wide recession.
3. While Dillingham voluntarily liquidated, Northwest Marine and Lockport failed; we competed and grew market share.
4. We grossed \$16 million in 1988-1989, \$35 million in 1989-1990 and predict \$70 million in 1990-1991.
5. We have the only long-term exclusive contract with a major oil company in the United States.
6. We are developing other long term oil tanker repair contracts because of our recognized expertise in tanker repair.
7. We exceed \$100,000 per day payroll on a routine basis and have employed between 600 and 1,200 employees for the last two quarters. Our payroll for fiscal year ending August 31 was \$22,000,000, next year will exceed \$35,000,000.

Despite these community benefits, I am left with the disconcerting view of the shipyard relayed to me by a Port of Portland staff member. He said the Port Commission views the shipyard as a problem; unlike the airport which operates smoothly. We are not the airport. The airport is characterized by inelastic demand. The shipyard is not.

I have summarized below some of the features of our industry at Swan Island.

1. Our profit margins are extremely tight due in large measure to a "buyers" market condition and the competitive field of ship repair companies at Swan Island.
2. One reason for shipyard failures across the United States is that US yards could not compete with Asian yards. This competitive disadvantage is lessening, however, it is still a buyer's market and cost increases by the Port of Portland which must either be passed through to the customer or absorbed by the contractor chill business growth. There is a cause and effect relationship between Port of Portland charges and ship owner choices.

3. Commercial bidding practices are unregulated and widely variable. Often requests for bid are solicited to test the market without genuine intent to award. Other bids are bounced between the three Swan Island contractors with "best and final" bid wars resulting.
4. These market conditions leave ship repair contractors vulnerable.
5. We need a relationship with the Port of Portland that will foster and protect this industry.
6. Cost containment needs to be pursued aggressively in conjunction with reasonable and necessary rate increases.

WSI can and will improve its working relationship with the Port. Understand, however, we do not have layers of management staff and public relations experts. We ask your help in developing a more cooperative governing process at PSRY.

Thank you,

A handwritten signature in black ink, appearing to read 'Douglas T. Watson', with a long horizontal flourish extending to the right.

Douglas T. Watson
President

DTW/kmf

West State, Inc.

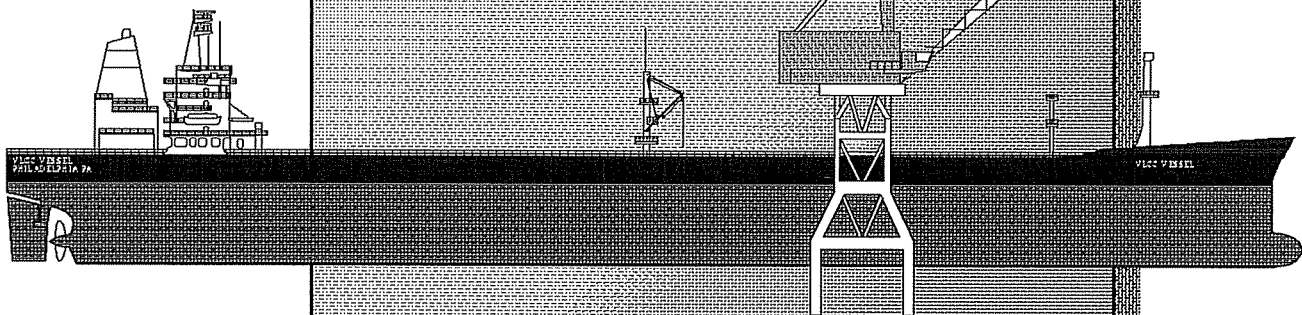
October, 1990



Prepared for
Port of Portland Deputy Executive Director
Bill Supak

A Company Profile:

- Introduction
- History
- Personnel
- Management
- Facilities



... The Ship Repair Specialists!



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The Growth of a Company: An Introduction to West State, Inc.

It has been nearly four years since West State, Inc. was founded in October of 1986. The company began with five people in a small, six room suite of offices with no equipment, facilities or contracts. The phone didn't ring for three weeks. We had desire, talent and very little else.

West State, Inc. will have over thirty-five million dollars in sales this fiscal year and we are projecting a potential of seventy million for next year. We currently have a backlog of firm repair contracts totaling more than twenty million dollars, a condition that is unheard of in the highly competitive marine repair industry. We are exploring joint venture agreements that would substantially increase our current business projections. A great deal has changed since those early days, much more than just the bottom line. We have improved every aspect of our business operations from labor and customer relations to accounting and production. Our clients now include all of the major oil shipping companies operating on the West Coast such as Chevron, Exxon, and Texaco as well as the Military Sealift Command, Maritime Administration, Corps of Engineers and the US Coast Guard.

Much of the repair work that was going overseas to the Far East is now coming back to Portland due in large part to the quality and productivity that we offer. We are constantly striving to provide a superior product at competitive prices. We have negotiated a new labor agreement that eliminates the old seniority system and allows us to hire our craftsmen on the basis of their skills and productivity rather than time in grade. All of our personnel must also pass stringent drug tests before becoming a part of our team. This policy, along with continuing safety improvement programs, has lowered our accident rate and improved our competitiveness through increases in productivity.

The crowning accomplishment of our growth and maturing as a corporate entity was the award by Chevron Shipping Company of a long-term ship repair contract for their West Coast fleet of seven ships. After a long and highly competitive contest with the other West Coast repair yards, West State emerged as the best overall in the wide range of criteria considered. Of particular importance to Chevron was our approach to safety. They are industry leaders in the emphasis of safety considerations and took a very hard look at our own programs before making a decision.

This new concept in the marine repair industry eliminates the competitive bid process and looks for productivity, safety and quality improvements by giving one firm a long-term work commitment. This one contract with Chevron gives us 5 to 10 million dollars a year in advance bookings and truly establishes us as an industry leader. We are currently discussing this approach to vessel repair and maintenance with other major shipping companies who have expressed an interest in the concept.

In the pages that follow, we have provided an overview of our company and its achievements which demonstrates the distance we have traveled since our modest beginnings.



WSI Work History

WSI is now in its fourth year of operations and has successfully undertaken a large and varied number of projects ranging from simple maintenance contracts to major ship conversions, special surveys and biennial drydockings. Our clients include such well known owners and operators as Arco, Exxon, Chevron, Sohio, Keystone, Texaco, I.O.M., M.O.C., MARAD and MSC. Listed below are some short descriptions of a few of our major projects followed by charts of our 1989 and 1990 work history.

CHEVRON CALIFORNIA: \$3,752,000

Annual drydocking and repairs. In addition to the normal maintenance and repair items, there was a great deal of specialty work on this vessel. Over 14,000 hours of structural crack repair was performed in the cargo tanks along with the installation of 800 anodes. The main deck was blasted and coated and 70% of the hand railing was replaced. A new sonic soot blower was installed along with extensive work on the boiler system. Large scale repairs were performed to the IGS system and a new cargo tank vapor recovery system was installed. This involved over 400 feet of new, 14 inch piping on the main deck and nearly 600 feet of 4 and 6 inch electrical conduit that had to be shaped through extensive piping interference.

**CHEVRON COLORADO:
\$3,091,000**

Annual drydocking and repairs. This was a very heavy maintenance period for the vessel. Repairs were accomplished to almost every system of the ship. The hull was completely blasted to bare metal and then painted. In addition several of the ballast tanks were blasted and coated and major pit repairs were accomplished in all of the cargo tanks. A new vapor recovery system was installed in all of the cargo tanks which involved a great deal of 14" pipe work and extensive relocation of existing deck piping. The main gas turbine of the vessel received a major inspection lasting most of the yard period.

**CORPS OF ENGINEER'S DREDGE YAQUINA:
\$1,370,000**

Annual drydocking and repairs. This contract involved extensive pipe, valve and steel work. Much work was done on the distribution system 20" piping, from the dredge pumps, through penetrations, to the hopper system. The forward and after overflow stationary sleeves received considerable work also. This required large hull and hopper inserts to modify the dredging cycle. A large amount of clad welding was performed as well as extensive work on the upper deck piping. In addition to the pipe and steel work, the hull, house, stack, engine room and pump room were completely painted.

**USNS NEPTUNE:
\$2,055,000**

Biennial drydocking, repairs and major bathometric equipment upgrade. In addition to the normal biennial repair items such as hull painting, valves, steel and pipe replacement, this yard period involved the installation of new, complex sonar equipment. The installation of the sea beam array required the removal of two existing sonar domes and three transducer arrays from the bottom of the vessel. The new equipment was installed in two new domes at different and much larger locations. The installation involved very high precision alignment and a great deal of structural and electronic work.

**CORPS OF ENGINEER'S DREDGE ESSAYONS:
\$1,705,000**

Annual drydocking and repairs. This contract included a complete overhaul of the vessel's reduction gears. All shafts and gears were removed along with the oil distribution boxes for the controllable pitch propellers. Following the gear overhaul, the

main propulsion system was realigned which required the re-bolting of the gear case foundation. In addition to this major item, there was a great deal of piping work accomplished during the overhaul period. This included the 36" piping for the hopper suction and discharge system, the removal and overhaul of 26" sluice valves and a considerable amount of clad welding.

TEXACO RHODE ISLAND:
\$1,745,000

Biennial drydocking and repairs. Following our success with the Texaco Connecticut, we were awarded the Rhode Island. In addition to the standard biennial work items, there were several other major areas of activity. The most significant work item was the installation of a complete cargo tank heating coil system in the vessel's 15 cargo tanks. This involved some 4,700 meters of Yorkalbro coils that had been specially fabricated in England. This item also involved extensive modifications to the deck steam piping for connection to the cargo heating coils. Another major piping item involved the installation of a new main feed pump that was larger than the original unit. This caused extensive modifications and re-piping in the pump room which was accomplished in record time. Finally, it was also necessary to rebuild the stern tube bearings which involved the complete realignment of the propulsion shafting when repairs were completed.

TEXACO CONNECTICUT:
\$1,205,000

Biennial drydocking and repairs. This was the first Texaco ship to come to Portland for drydocking in nearly five years. In addition to the standard biennial work items, two, 22' x 8' x 1 1/4" flat keel plates were replaced in shaft alley along with bottom shell plates in six other locations in the 1 center cargo tank. A total of 180,000 square feet of tank area was blasted and coated in 1 center cargo and 2 port and starboard ballast tanks. The field windings of the main generators were cleaned, one by steam and the other by corn cob grit blast. The entire project was completed two days early and well under budget. WSI received the highest rating given to shipyards for repair work by the Texaco crew and repair personnel.

USNS OBSERVATION ISLAND:
\$5,138,000

WSI has worked many contracts that involved major modifications to complex electrical, mechanical and structural systems. We have recently completed a large contract for modifications and repairs to the USNS Observation Island, a military surveillance vessel. This project involved extensive modifications to the electrical and communications systems of the vessel. A Technical Alert System was installed in

163 locations throughout the vessel requiring extensive cable routing work. A new entertainment system using coaxial cable was installed that provided service to 150 separate locations. Extensive HVAC work was performed which involved new motors, controllers, starters, relays and sensors. Another major portion of the project was to bring the vessel into USCG class A and class B fire boundary compliance. The total project lasted 127 days and was completed on time.

CHEVRON LOUISIANA:
\$1,699,000

Biennial drydocking and repairs. Major work items included cargo and ballast tank pit repairs; blasting and coating of nearly 50,000 square feet of tank space. There was also extensive work performed on the cargo and ballast system valves and piping along with considerable repairs to the inert gas system. Complete maintenance was also accomplished on the main propulsion motor and generator.

USNS POINT LOMA:
\$800,000

Mid-term availability for top side repairs. The majority of this contract involved machinery inspections, renewals and repairs by marine machinists. This included extensive work on the main propulsion turbine and gears along with the ship's service generator turbine and reduction gears. Repairs were also made to the main and auxiliary steam systems after preliminary hydrostatic testing revealed leaks and defective valves. A total of fourteen sea and overboard discharge valves were disassembled, inspected, renewed and reassembled in place after soft patches were put in place by a diver. Work was also carried out on the forced draft blowers, main condensers, evaporators, condensers, lube oil and fuel oil service and transfer systems.

EXXON LONG BEACH:
\$6,050,000

Major Biennial drydocking and repairs. 331 specification items were completed during this contract. Cargo and ballast tanks totaling 536,450 square feet were cleaned, blasted and coated with two coats of a coal tar epoxy system. The entire hull, over 300,000 square feet, was blasted and coated with a self-polishing, anti-fouling paint. Three coats were applied from keel to freeboard, two coats from freeboard to rail. In addition to the normal biennial items, there was a considerable amount of steel work performed. Catwalks running down the center of each tank on the transverse web frame faceplates were fabricated and installed. There were 129 sections of 16 feet each. Tank stringer safety rails totaling 2,264 feet were also



installed. Over 400 transverse bulkhead stiffener brackets were installed in the #2 & #4 port and starboard ballast tanks.

KEYSTONE CANYON:
\$3,250,000

Major Biennial drydocking and repairs. 255 specification items were completed during this contract. 150,000 square feet of ballast tank space was cleaned, blasted to near-white and coated with 2 coats of Epoxy. 250,000 square feet of hull surface was also blasted and coated. 178 dresser couplings ranging up to 36 inches in diameter were worked including the installation of new rubbers. A Moletron fuel treatment system was installed along with a new 75 amp niobium anode system. Both items required extensive new cable installation. A new carrier bearing had to be cast and installed. This involved cutting a deck insert, disconnecting and rigging aside all steering gear machinery and removing the rudder stock. Several hundred feet of clad welding was accomplished in the pump room on wasted piping. Extensive repairs were made to the cargo pipe system.

EXXON VALDEZ:
\$7,348,000

Major Biennial drydocking and repairs. 420,500 square feet of tank space was blasted and coated along with 335,000 square feet of hull to SA 2 1/2. The hull was coated with a self-polishing coating. Changed out all motors on 75 EIM electric actuators and upgraded the circuits, circuit breakers and internal mechanical parts. Constructed four new noise abatement ducts weighing 11,000 pounds each and 45 feet in length. Changed out the rudder carrier and pintle bearings and cut back the rudder by 15 inches forward to aft. Accomplished major steel renewals in the tanks including hundreds of bracket modifications and buckled stringer panels in the fore peak.

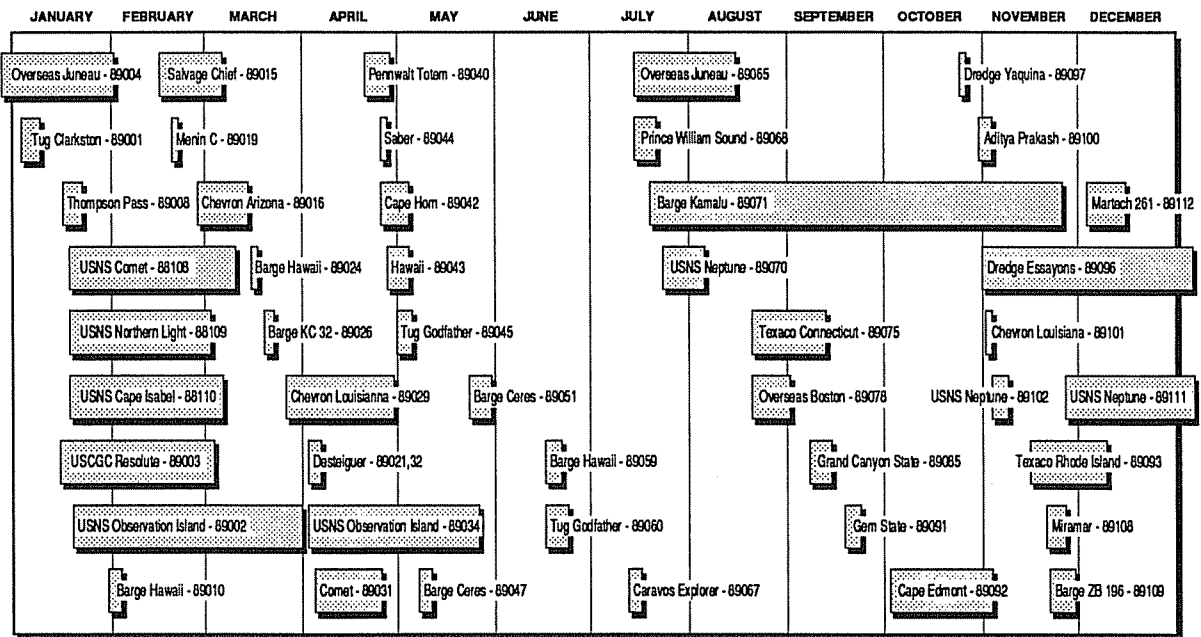
BROOKS RANGE:
\$4,995,000

Major biennial drydocking and repairs. Special survey no. 2 (8 year) was performed for Coast Guard and ABS requirements. 242,000 square feet of tank space was blasted and coated along with 308,000 square feet of hull down to bare metal. There were extensive repairs and renewals to the IGS, ballast and cargo piping systems.

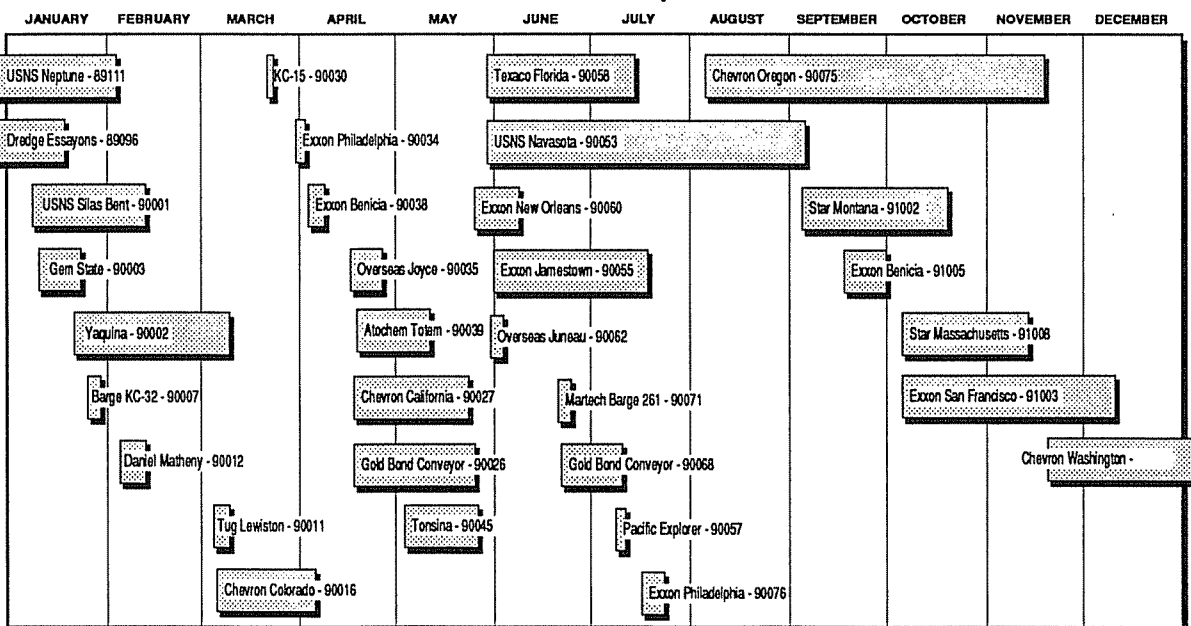


Shown below is the major work history for WSI during 1989 and thus far into 1990. Our work has included a wide variety of both clients and vessels. Our management and journey-men have experience on vessels ranging from small tugs and barges to large VLCC's. Our company is particularly strong in major structural repairs as demonstrated by our past work experience.

1989 Vessel Repairs



1990 Vessel Repairs



West State, Inc.

Key Personnel

The key to any successful corporation is to be found in its personnel. All of the key personnel at WSI have strong backgrounds and excellent reputations in marine repair. The company operates on a merit shop basis: the best man is given the job. This philosophy is carried through all levels, including top management. All of our key employees have proven reputations of excellence and professionalism within the industry.

Douglas T. Watson **President**

Doug has a proven record of successful, ever increasing levels of management responsibility culminating in the founding of WSI. Prior to this he was Operations Manager for a multi-million dollar ship repair firm, Dillingham Ship Repair. He was personally responsible for the dynamic growth period of DSR during the early eighties through customer development, quality work, innovative repair techniques and profitable project management. He has an industry-wide reputation as a consultant on difficult marine repair problems.

Terry Lindquist: **Executive Vice President**

Terry has a degree in business administration and over twenty-two years of industry experience in senior financial management positions. He is a results-oriented leader with a comprehensive understanding of all major business facets including marketing,

operations, administration and finance. Most recently he served as a management consultant for a \$250 million air cargo carrier. In that capacity, he completely reorganized the finance departments, restoring their credibility and increasing profitability to the company. He has a solid reputation within the banking community as a tough negotiator and sound fiscal administrator with the ability to function well in challenging turnaround or high growth environments.

**Russell House:
General Counsel**

Russell is a lawyer licensed in both Oregon and Washington with over ten years of legal experience, including private practice, trial work and business law. Before joining WSI, he was corporate counsel for a \$250 million aviation company where he participated in an intensely transactional aircraft operations and leasing practice. He was a certified welder for Todd Pacific Shipyards in Seattle before attending law school; consequently he has a practical understanding of the marine industry and a desire to blend legal, business and operational elements in a solution oriented manner.

**Melvin Berg:
Industrial Relations Manager**

Mel has worked in the marine repair industry along the West Coast for over 15 years. He has held a number of direct and non-direct operations management positions including Craft Superintendent, Ship Superintendent, Safety Director, and Production Planner. In addition to his practical experience, Mel has a degree in Economics with additional course work in Labor Economics and Industrial Relations. His wide range of practical and academic experience coupled with his proven management skills make him a valued employee.

**Byron Nylander:
Contracts and Estimating Manager**

Byron has a strong background in personnel management, marine system controls, automation and test engineering. Until recently, he was President of Oregon Design Service Management, a marine design firm working with West Coast Shipyards. He was senior test engineer on the Chevron gas turbine tanker project for the FMC Marine and Rail Division and spent several years as Plant Electrical Engineer at FMC upon completion of the tanker program. After leaving FMC, he worked in engineering management at Northwest Marine Iron works and Dillingham Ship Repair prior to joining WSI.

**Ray Herndon:
Production Manager**

Ray has ten years of marine steel management experience. Before joining WSI he was senior steel foreman at Cascade General and prior to that, senior technical steel manager for Dillingham Ship Repair. He is thoroughly versed in all aspects of technical steel work from estimating, planning and coordination to actual supervision of large work crews. Most recently he supervised the renewal of 460,000 pounds of steel on the ARCO JUNEAU.

**Gary Erb:
Senior Project Manager**

Gary has a B.S. in Electrical Engineering from Oregon State University and over twenty-one years of solid, marine industry experience. Prior to joining WSI, he spent ten years as the Data Systems and Project Planning Manager for Northwest Marine Iron Works, developing most of their DP systems from scratch. Gary also spent many years with the Marine and Rail Division of FMC where he was a Senior Systems and Test Engineer during the Chevron tanker program and later, Electrical Facilities Manager. He started his career with the Puget Sound Naval shipyard as an electrical design engineer.

**Richard Paulus:
Senior Estimator**

Richard has nineteen years of experience in marine contract administration and estimating, all of it with firms in the Portland area. Prior to joining WSI, he worked in the contracts departments of Northwest Marine Iron Works, Dillingham Ship Repair and Cascade General. While he has experience in all areas of the marine repair environment, Dick is a specialist in the administration of government contracts, especially work for MSC, Coast Guard and the Army Corps of Engineers.

**Richard Taylor:
Project Manager**

Richard has twenty-two years of experience in marine overhaul and conversion with an emphasis on naval and electronic work. Prior to joining WSI he was the Quality Assurance Director for Northwest Marine Iron Works, a position he held for seven years. Richard was responsible for the Quality Assurance programs on several large Navy overhauls during this period. He also has an extensive background in military electronics and engineering gained while working for PacOrd.

**Steve Campbell:
Estimator**

Steve has been involved in both marine repair work and mechanical engineering for the past fifteen years. In addition to many years as a marine carpenter supervisor at both Northwest Marine Iron Works and Dillingham Ship Repair, he also has extensive industrial design experience in HVAC systems and sheet metal work gained while with local engineering firms. Steve has an AA degree in Civil Engineering from the Oregon Polytechnic Institute and is currently helping to automate portions of WSI's bidding procedures.

**Michael Williams:
Schedules, Planning and Proposals**

Mike has a strong background in both scheduling techniques and computer applications. Before joining WSI, he spent several years with Dillingham Ship Repair where he participated in the development of computerized tool control programs and was directly responsible for the preparation and analysis of critical path and Gantt charts on all major projects. In addition to his work experience, Mike has a college background in both physics and mathematics from Stanford University.

**Lynn Mattix:
Technical Writer**

Lynn has been in the ship repair industry for 15 years, starting as a production welder in new construction for FMC and Northwest marine Iron Works. In her 11 years at Dillingham Ship Repair, she specialized in X-ray and exotic welding and for 3 years was a permanent Leadman and also a Foreman for the boilermaker department. After an interval as a specifications writer for Dillingham, Lynn joined the WSI Contracts Department and helped to set up our very successful Quality Assurance program.

**Jim Mattix:
Senior Ship Superintendent**

Jim has twenty-one years of steel and project management experience, most of it within the marine construction and repair industry. Prior to joining WSI, Jim was eleven years with Dillingham Ship Repair as manager of the boilermaker department and later as Senior Ship Superintendent. He has managed large scale projects of over twenty million dollars in size, employing in excess of six hundred men per day.



Bill Gulker:
Ship Superintendent

Bill has worked in the marine repair and steel fabrication industry for the past fifteen years. This includes time with both Northwest Marine Iron Works and the FMC Corporation. He is a specialist in material logistics and all phases of steel work from design and lay-out to fabrication and installation. He supervised much of the difficult steel work on the USS DULUTH and USS CUSHING when they were in for structural modifications by Northwest Marine Iron Works. He currently manages most of our MSC projects including the recent 127 day project on the USNS Observation Island.

Bob Brown:
Mechanical Group Manager

Bob has sixteen years of marine machinery experience at progressively higher levels of responsibility. Prior to joining WSI, he was a Mechanical Department Manager for Dillingham Ship Repair. His main areas of expertise include main reduction gear overhaul and the repair of all makes of marine pumps and turbines. Bob has also served as a ship superintendent on heavy mechanical projects.

Arnold Greenfield:
Night Superintendent

Arnie has fifteen years of marine and new construction piping experience including seven as a Senior Foreman and Department Manager. Prior to joining WSI, he was Pipe Department Manager for Dillingham Ship Repair. Arnie has extensive piping experience on both commercial and government vessels including system design, lay-out and fabrication involving ferrous, non-ferrous and exotic materials. He has completed several courses in management and safety administration.

John Johnson:
Steel Manager

John has 15 years of marine steel experience including 10 as senior foreman and department manager. Prior to joining WSI, he was steel department manager for Dillingham Ship Repair. He is thoroughly versed in all aspects of steel work from planning and coordination to actual supervision of a large work force. Most recently he supervised the renewal of 630,000 pounds of steel on the Chevron Oregon and major structural modifications to the Exxon Valdez and Long Beach.

Harry Bordner:
Electrical Group Manager

Harry has been working in marine electrical construction and repairs for 28 years. Most recently, he was Electrical Manager for Dillingham Ship Repair, where he worked for the past ten years. He has extensive experience on both Navy and MSC ships as well as commercial tankers. Harry has a complete technical background in every phase of marine electrical and electronic work along with a long history of management experience.

Don Chernault:
Rigging Department Manager

Don has sixteen years of material handling experience within the ship repair industry. Before coming to WSI in 1987, Don was a rigging foreman and then Support Craft Manager for Dillingham Ship Repair. This position gave him responsibility for the laborers, maintenance electricians, carpenters and riggers used on a job-by-job basis. Don also served as technical adviser to the rigging department on all heavy lift requirements. He has consistently demonstrated superior skills in craft supervision and customer relations.

Robert Sleightam:
Pipe Department Manager

Bob has worked in the marine repair and construction trades for the past twenty-five years and in a supervisory position for the last twenty years. Prior to joining WSI in 1987, Bob served six years as swing shift manager for the pipe department at Dillingham Ship Repair. In that capacity he was responsible for all pipe department swing shift personnel including safety, budgets, schedules and technical direction. He supervised up to 100 pipefitters during peak work periods on commercial tankers.

Lonnie Zimmerman:
Paint Department Manager

Lonnie has twenty-two years of experience in the area of marine surface blasting and coating. Prior to joining WSI, he was the Paint Department Manager for Dillingham Ship Repair. His background includes nine years of work to military specifications on a wide range of vessels and equipment. He is a specialist in the blast and coat of tanks and hulls on commercial oil tankers to 265,000 DWTs.

Gib McHale:
Material Control Manager

Gib has 15 years of ship repair experience covering a wide variety of activities. He has a particularly strong background in material handling, receiving and inspection. Most recently, Gib was with Dillingham Ship Repair where he held the management position of Support Director. In that capacity, he was directly responsible for all quality assurance programs, material control and a multi-million dollar owner furnished materials storage facility.

Walter Botts:
Safety Manager

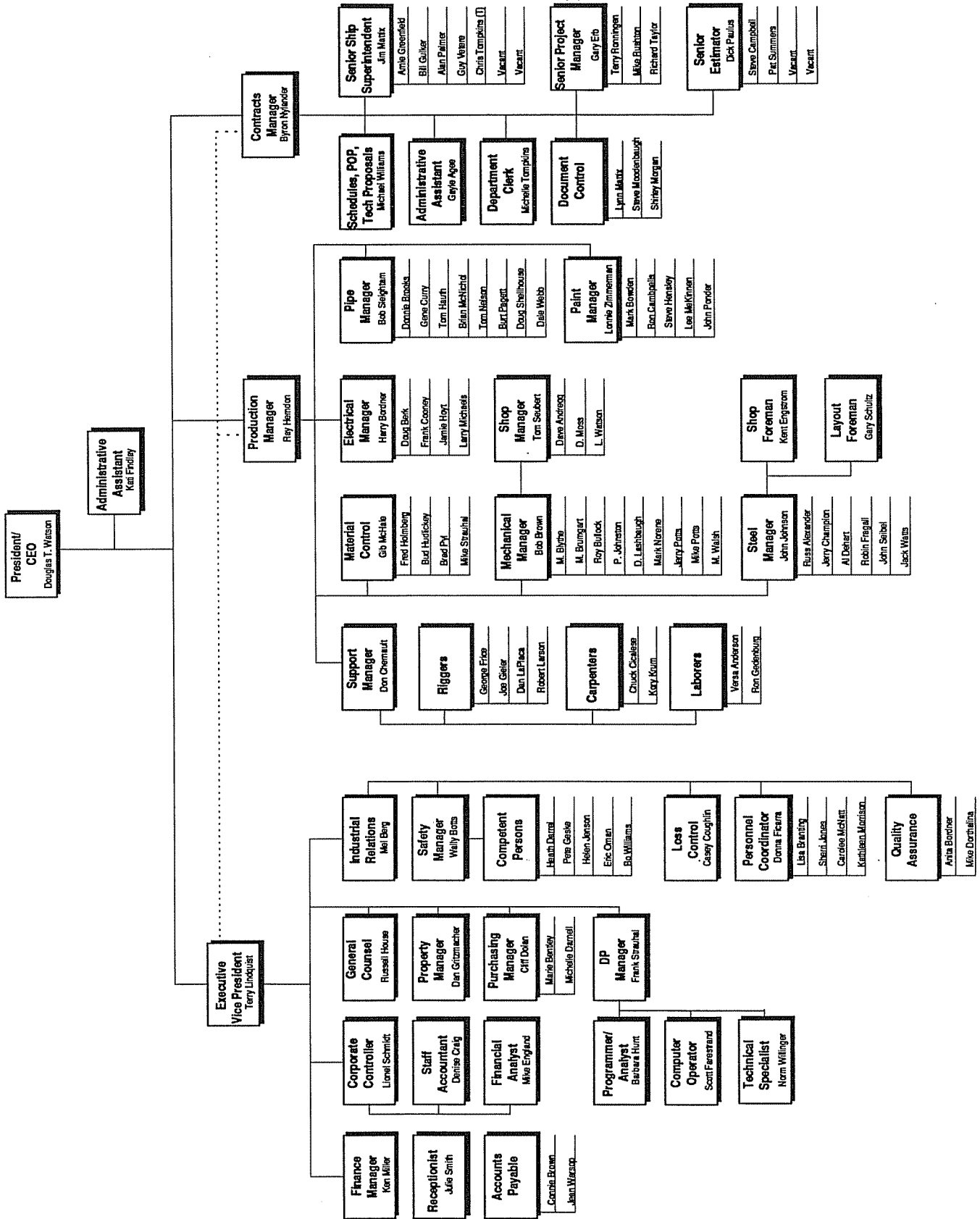
Wally has 15 years of experience in the marine and heavy industrial manufacturing industries in safety related programs. At FMC Corporation he coordinated and supervised safety meetings, scheduled inspections and tests of heavy equipment and was responsible for all safety aspects of material handling. While at Dillingham Ship Repair, he performed all operational tests on the computerized crane system aboard the GRAND CANYON STATE.

Cliff Dolan:
Purchasing Manager

Cliff has over nineteen years of purchasing experience within the marine repair industry, eighteen of it with Northwest Marine Iron Works as a materials buyer. In that capacity, he handled a wide variety of goods from pipe and valves to steel and electrical items. Cliff has worked on many large scale government contracts and is well versed in their special requirements and the appropriate Mil-Specs. In addition to his purchasing expertise, Cliff also has a background in all phases of warehouse management.

Colleen Coughlin:
Loss Control

"Casey" has an extensive background in security systems and management covering the last eighteen years. She has developed security systems and fraud detection offices for several major retailers and works quite closely with the local police. Her training covers the full spectrum of security matters including hostage situations, bomb threats, crowd control, fraud, theft, first aid procedures, police procedures and safety training.



Contract Management

WSI has many sophisticated systems in place to insure that large, complex projects are correctly managed and controlled. We utilize both advanced techniques and hardware to plan and control all major operations. The data processing department utilizes an IBM System 38 computer with custom software written expressly for the ship repair environment to track contract job costs. In addition, smaller PC's are used to generate schedules and prepare bid proposals. In the pages that follow, an overview of these procedures and systems is given, tracing the flow of operations from the initial bid to the final invoice.

Initial Bid Preparation and Planning

This phase begins with the receipt of the bid package and is extremely important. The success or failure of a large, complex project is largely determined by the establishment of realistic schedules that will meet the contractual requirements. This is where the baseline for the measurement of future progress is set. Each work specification item is first analyzed to determine labor, material and subcontractor cost. Once the man-hour requirements for each item are determined, a preliminary Gantt chart is prepared to show the time sequencing of the work items. This, in turn, allows manpower requirements to be established and adjusted to fit with concurrent work. Finally, this information along with material lead time constraints and work item interdependency data is fed to the computer to establish a critical path model of the project. This last model will reveal any final schedule changes that will be necessary to meet the project requirements and will serve as the basic tool for future tracking and adjustment to the project schedule. The bid itself is prepared by contract staff personnel with assistance from craft managers when necessary. Once complete, the

bid is reviewed by the Contracts Manager for completeness, accuracy and correct analysis of the work items. A labor rate and materials mark-up percentage are assigned at this point and the bid is passed back to staff for computer entry. All calculations for each work item are then made by the computer to produce the final bid package. The automation of the bid calculations greatly improves productivity and accuracy.

Pre-Production Planning

Once a contract has been awarded, a project management team is established to follow the job to completion. The Contract Manager and Ship Superintendent meet with the various department supervisors to review each work item in detail. Man-power requirements are established along with critical path milestones that must be met along the way. Any long-lead materials are ordered and the relationships with the various subcontractors involved are discussed. Every department learns exactly what is expected of them. A detailed breakdown of the bid hours showing the hours for each work item by craft is distributed to each craft manager so that he may properly budget his time. The Contract Manager also assigns a lead craft to each item at this time which is responsible for all activity on the item. This ensures that there will always be accountability for any problems that may develop during the contract period.

Production Reports and Meetings

Each morning, a preliminary report of the previous day's time charges is distributed to the project management personnel. The report shows the regular and overtime charges by each craft. On larger projects, it is also accompanied by graphs of daily and cumulative charges charted against actual budgets with projections of final outcome given the current trends. This allows potential overruns to be quickly isolated by craft and corrective action taken.

During the course of a project, production meetings are held on a daily basis with all project management and department supervisors in attendance. Each work specification item is reviewed for problems and an estimate of actual completion percentage is made. These figures are later keyed into the computer model for comparison with percentages of budget expended. In this manner, any work item that is not within schedule can be isolated and corrective action taken. Subcontractor and customer representatives are also present to provide a full spectrum of input.

Change Orders

The scope of work during a complex contract is always subject to change as the project develops. These changes are documented on a "Change Order Request & Approval" form which is completed by the Port Engineer or Ship Superintendent. On it, details of the proposed change to the work item specification are made in writing for later review by the contract administrator who will price the change and advise of any schedule impact that may develop. This provides the necessary control to the dynamic process of contract growth.

Material Control Procedures

WSI employs a fully automated materials control system utilizing an IBM System 38 computer which tracks materials from purchase to actual use. When a purchase order is generated, each line item is assigned a unique, internal stock number and job/item designation. This allows the compilation of important job and performance statistics as the materials move from vendor to actual use.

When materials arrive at our receiving facility, a receiving report is generated detailing amounts, condition, time and other pertinent information. This is used to update the computer record of the ordered material and maintain inventory records. Owner furnished material is assigned to a separate holding area to assure accountability. Any items bought directly to a specific contract account are also placed in separate storage areas as opposed to the general inventory. This insures that no material will be inadvertently charged for twice in job costs. WSI maintains 10,000 square feet of secured, environmentally controlled warehouse storage area in addition to another 52,156 square feet of general yard storage and 8,400 square feet of controlled Owner Furnished Material storage. We have options on additional storage facilities on an as needed basis. All facilities are based at the Port of Portland Swan Island Ship Repair Yard which is conveniently located near all forms of sea and land transportation. Our central receiving complex includes heavy lift equipment to handle a wide variety of materials.

When material is required for ongoing work, a materials issue form is filled out detailing the material, stock number, job number and specific work item number for which the material is destined. This information is input daily to the computer allowing for real time tracking of costs and inventory levels. This same form is used to credit a job for any unused or returned items.

In addition to a main warehouse facility, WSI maintains several portable units that can be moved directly aboard the vessel being worked. This allows for more timely distribution of materials and greatly improves production efficiency. The same accounting procedures are maintained at the remote sites.

Job Cost Systems and Procedures

In addition to our great depth of experienced production personnel, we have the most modern of data processing equipment and systems software available with specially trained people to operate them. This allows management to monitor performance on a real time basis and insures that the customer is getting what he pays for. Job cost data is gathered from three basic areas and then integrated for an overall picture.

Direct Labor: For each job, there are a series of department foremen working under a production manager. Each foreman maintains time records for his personnel and submits a time card for each person every shift. The card contains a time breakdown by job and item which is entered daily into the job cost system. Detailed reports are produced daily which show specification work item totals and variances from planned schedules.

Material Issues: As detailed in the section on material control, all materials used from general inventory are recorded on a materials issue form showing quantity, job and item. These reports are gathered daily from both the warehouse and remote sites to be keyed into the system. This allows on-line monitoring of "consumable" material costs and early detection of any overruns.

Purchase Orders/Subcontract Costs: All outside material and labor required for a specific job is documented by a purchase order. This document is generated directly by the computer which then maintains an ongoing tracking record on each line item. As material is processed through receiving, data is keyed into the system and matched against the original purchase order information. This allows the status of any order to be quickly determined and provides an immediate update to the job cost system. Later, when actual vendor invoices are received, any variances from quoted prices are noted and recorded by the computer for management review.

The job cost software takes data from all of the above areas and integrates it for a comprehensive overview of any project. Reports can be generated that then show the data from several points of view, such as time period, specific work item number or any other job parameter. Projections and comparisons against schedules and budgets

are made to catch any potential problems early on. This real time tracking of the project serves as an invaluable management tool.

Identification and Recovery Procedures for Schedule Slippage

The primary tool for the identification of actual and potential schedule slippage is the critical path model maintained by the computer and the associated Gantt charts which are generated from it. These software tools along with man hour expenditure versus budget allow early detection of problem areas during the daily production meetings. There are four major areas to be addressed.

Increases to Work Scope: As additional work requirements are added to the project, the critical path production schedules are also updated. A certain amount of growth was anticipated when the original schedules were constructed and this will show in the overall "float time" in many schedule areas. When this built-in flexibility is exceeded, the customer will be notified that the requested increases may cause a schedule slippage unless overtime or schedule extensions are allowed.

Material Delays: Our computerized materials tracking system used in conjunction with the project critical path model, allow us to identify a potential schedule problem due to material delays. When this happens, we first review the possibility of re-scheduling the work task to a latter period when the material will be available. If this is not possible, we then consider other sources including our own work shops. As a last possibility we look at possible substitutes which the customer will approve or that can be replaced at a later date by the original order.

Subcontract Slippage: Just as with our own personnel, subcontractor activities are also detailed by the critical path models. We monitor them as closely as our own workers. If a subcontractor is not maintaining his schedule, we first offer help in the form of personnel and materials. If improvement is not apparent, we then consider complete replacement. Final payments are not made until all work is satisfactorily completed.

Contractor Slippage: When it becomes apparent that our own work crews are falling behind schedule on a critical work item, we first look at the possibility of additional manpower or shifts. Another approach is to re-schedule the work order to fit in the additional time requirements. Above all, we analyze the slippage to understand why. This often identifies a specific problem that can be corrected to bring the project back into schedule.



WSI has never been late on a contracted delivery schedule. Even in the face of work growth in excess of one hundred percent, WSI has always completed all work on time.

Billing Procedures

On most large contracts, weekly or bi-weekly progress payments are requested and received from the customer. This is made possible by the detail of work progress and changes which is updated daily and maintained by the contracts department. The data entry of all expenditures in both time and materials allows this real-time cost data to be accumulated as the contract progresses. Once the vessel has sailed, a review of the total costs allows a final invoice to be prepared which gives the final total on an item by item basis for the customer to review. As most of the figures have already been approved by the customer during the course of the contract, a final settlement is generally quickly reached.

WSI Safety Program

From the very first day of operations, the personal safety and health of each employee of WSI has been the number one concern of senior management. Even before we began our first contract, a formal safety policy was written and personnel were assigned to ensure that the policies and procedures developed in that document were properly implemented. This OSHA approved document is available on request and covers our basic safety philosophy along with the following areas in detail:

- General Rules
- Protective Clothing and Equipment
- Machinery and Electrical
- Fire Protection
- Fuel Gas Cutting and Welding
- Arc Welding and Cutting
- Safe Practices for Painting
- Safe Use of Ladders
- Safe Use of Scaffolding
- Office Safety
- Written Hazard Communication Program

In addition to our basic safety policy, we also have a safety and health overview which contains details of our fire prevention procedures, fire protection plan, the integrated fire protection system and emergency response plans for fire and flooding. Because of our strict adherence to these many precautionary procedures, WSI has never had a fire aboard one of our vessels. Our safety record is considered to be the finest on the West Coast and possibly the best for any U.S. ship yard. This record brings rewards beyond the immediate areas of safety and productivity. It is good for



business. WSI receives substantial insurance premium reductions due to our excellent safety record.

Safety is considered to be everyone's responsibility from the president on down. Ensuring the active involvement of all employees is a vital and necessary aspect of preserving any effective safety and health program. At weekly safety meetings, employees are encouraged to report any unsafe acts or conditions that they have witnessed in the work place. Written reports of any serious offences are made and responsibility for correction is assigned to the appropriate department by the Safety Director.

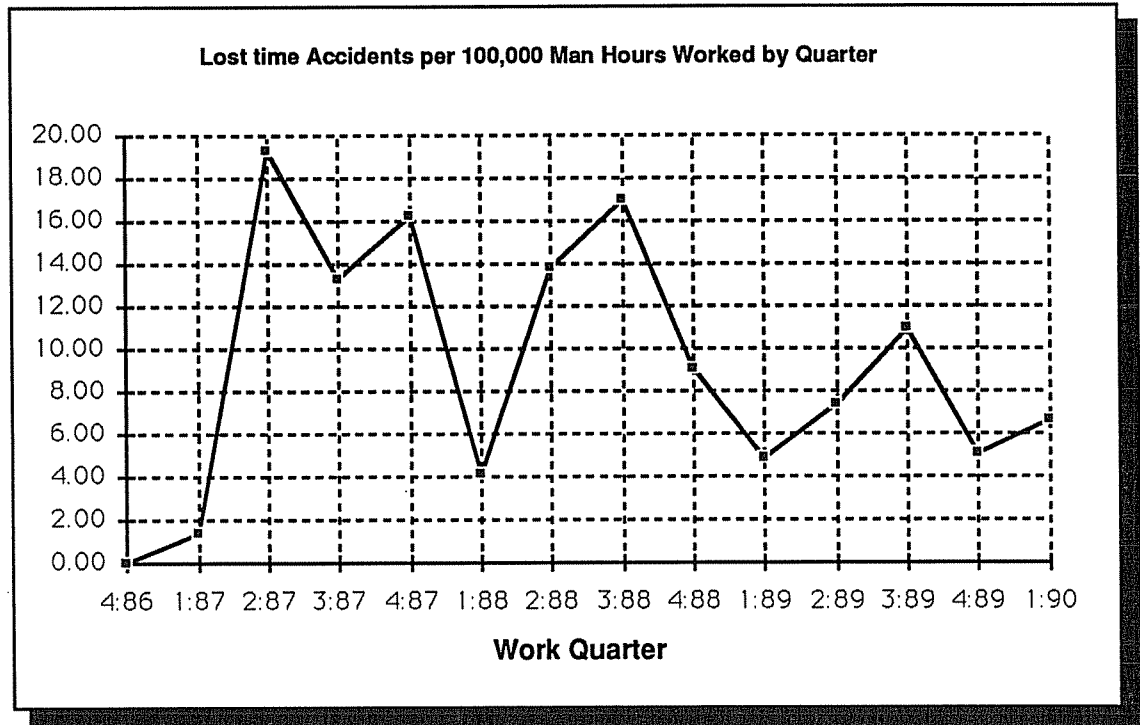
These meetings are also used to update employees on any new system or equipment that is required in their work place. An example of a new program that we have recently implemented is the "Confined Space/Tank Entry Card". Every employee, including office personnel, is issued a special iridescent card encased in plastic which shows their name, employee number and craft. Whenever they enter a tank or other confined space aboard a vessel, the card is placed on a special board near the entry and removed when they leave. In case of emergency, rescue workers can immediately ascertain the number and identity of personnel in any area by checking these boards.

To implement our safety policy, we have a full time director and four competent persons who have received extensive CP training. Gas free determinations are performed by our subcontractor, Marine Environmental Testing, which maintains a staff of fully accredited marine chemists. Our department maintains an extensive library of safety information which is continually updated to keep abreast of current developments. The safety department also insures that all new hires receive proper safety indoctrination and necessary safety equipment such as hard hats, safety glasses, dust masks and ear plugs.

To encourage the active participation by all employees in our safety program, WSI has recently begun a program of incentive awards for various levels of hours worked without a recordable work related accident, injury or illness. These awards grow progressively more elaborate and are given for monthly, quarterly and semi-annual periods of safe work practices.

The labor unions actively support our continued efforts to maintain a safe and productive work place. They report that their members prefer WSI to other shipyard employers because of the safer work conditions.





The chart above shows our lost time accidents by quarter since our founding in the fourth quarter of 1986 through first quarter 1990. Since that time, we have had no deaths, no dismemberments or shipboard fires. As the previous text covering our safety policy indicates, we attach a great deal of importance to safety in the work place. We feel that the non-seniority clause in our labor agreement contributes very positively to our low incident rate of lost time accidents. As the chart above shows, there has been a steady overall decrease in lost time accidents, especially during the past two years.



WEST STATE, INC.

...The Ship Repair Specialists!



WSI's offices and shops are located on Swan Island at the Port of Portland Ship Repair Yard in Portland, Oregon. This \$200 million site provides the most comprehensive ship repair facility on the West Coast. It features drydock capability to 275,000 DWT, fifteen wet berths with large cranes and full services throughout the yard.

PSY500005934

Facilities and Equipment

An Overview:

The WSI main offices and work bays are centrally located in building 72 at the Port of Portland Ship Repair Yard on Swan Island in Portland, Oregon. Building 72 is conveniently located at the head of the Port's Dry Dock #4, the largest facility of its kind on the West Coast, and just adjacent to several major wet berths. This excellent location is the best in the yard for productivity as our work crews need to travel only a few yards from our shops and warehouse to any vessel under repair. All berths and dry docks offer a full range of services and are equipped for complete crane service. See the following pages for more details.

Administrative Offices:

WSI maintains 5,600 square feet of main office space on the second floor of the building. This facility houses our executive offices, data processing center, accounting, purchasing, contracts and production management offices. In addition, there are several large offices set aside for visiting port engineers and customer representatives. There is also a large conference room and lunch room facilities. On the ground level we have another 2,500 square feet of additional office space occupied by production personnel and customer representatives. We also have an option on an additional 8,400 square feet of finished office area in the same building.

Work Bays and Secured Storage:

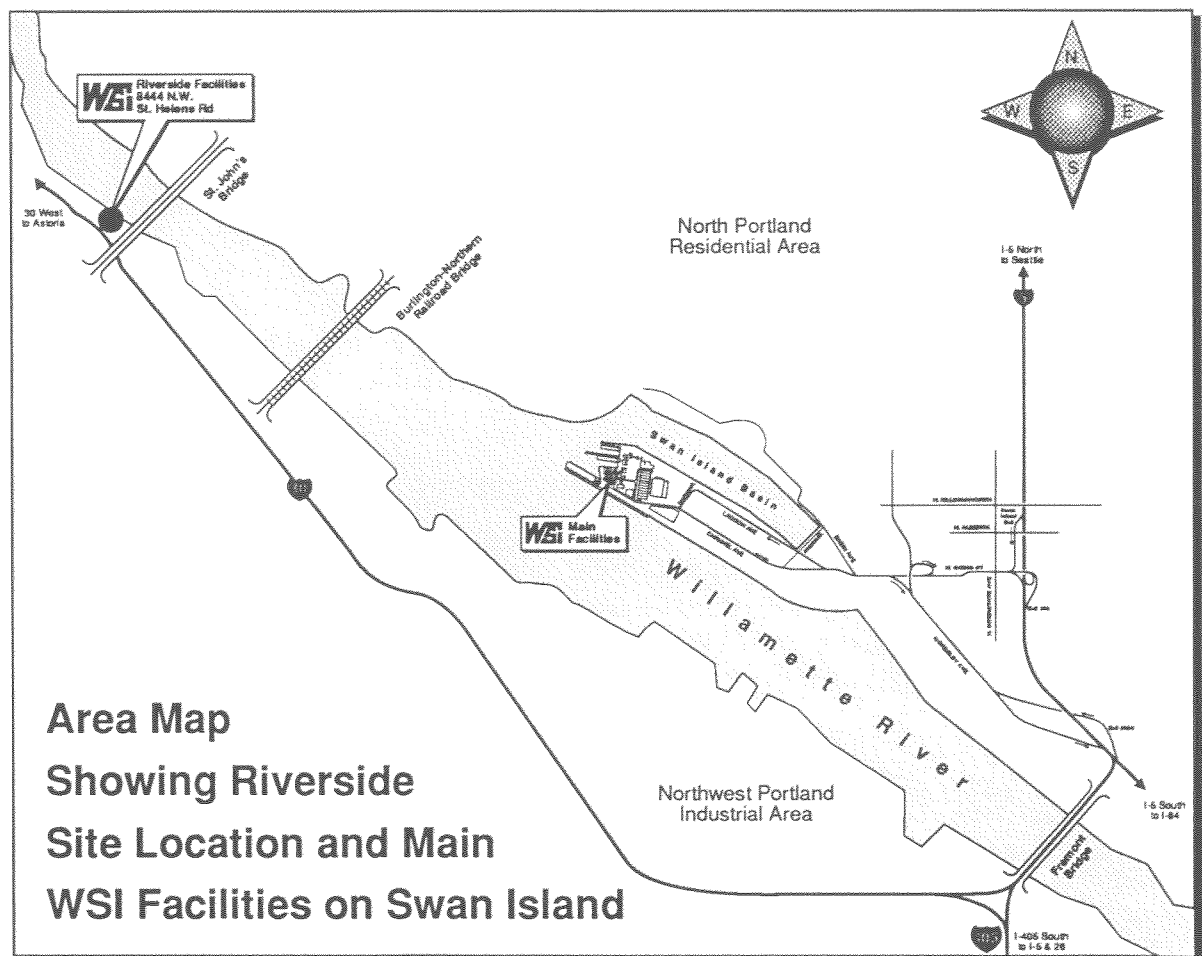
WSI maintains six work bays which provide over 65,000 square feet of work space. Twelve thousand square feet of this area is devoted to secured, environmentally controlled warehouse space with separate areas for owner furnished materials. The main steel bay is equipped with a 50 ton overhead crane and smaller jib cranes. All work areas are fully equipped with power and other services such as compressed air and water and are only a few yards from the major working docks and berths. In addition to the main warehouse area, WSI has 45,156 square feet of fenced open storage area in the main yard and another 7,000 square feet of open storage just adjacent to the building.

Area Map of Facilities

As is shown in the map below, WSI maintains two repair locations, both on the Willamette River in Portland. Our headquarters is in the Port of Portland Ship Repair Yard on Swan Island. This comprehensive facility of 125 acres provides complete services for any type of heavy marine repair and can accommodate vessels of up to 1,100 feet in length. There are three dry docks and sixteen wet berths available on an as needed basis.

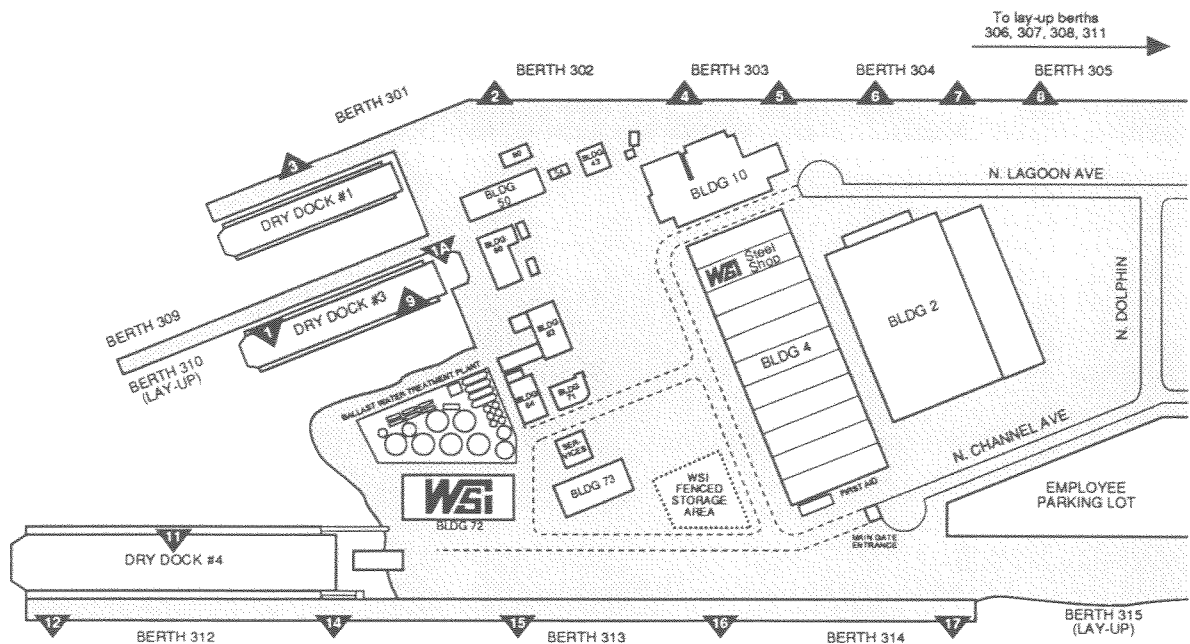
Our second location is the Riverside facility which is some two miles down river from Swan Island and has 1,100 feet of river frontage. Both locations have excellent access to heavy transportation and are only minutes from downtown Portland. Portland International Airport is a fifteen minute drive to the East on Interstate 84.

The Portland area has a rich maritime tradition and is well supplied with both skilled labor and marine repair subcontractors and suppliers.



Main Facilities on Swan Island

In addition to three drydocks, the Port of Portland Ship Repair Yard has fifteen wet berths totaling 10,100 feet of space serviced by 16 large cranes of up to 134 ton capacity. Full services are available at nearly every work location. WSI's main headquarters is shown below near the head of dry dock #4.



BERTHS

BERTH	USE	LENGTH	MINIMUM DEPTH
301	Repair	780' (237.7 M)	30' (9.1 M)
302	Repair	530' (161.5 M)	30' (9.1 M)
303	Repair	530' (161.5 M)	30' (9.1 M)
304	Repair	530' (161.5 M)	30' (9.1 M)
305	Repair	530' (161.5 M)	30' (9.1 M)
306	Lay-Up	500' (152.4 M)	20' (6.1 M)
307	Lay-Up	500' (152.4 M)	20' (6.1 M)
308	Lay-Up	500' (152.4 M)	20' (6.1 M)
309	Repair	1,000' (304.8 M)	30' (9.1 M)
310	Lay-Up	500' (152.4 M)	30' (9.1 M)
311	Lay-Up	700' (213.4 M)	35' (10.7 M)
312	Repair	1,000' (304.8 M)	40' (12.2 M)
313	Repair	1,000' (304.8 M)	40' (12.2 M)
314	Repair	1,000' (304.8 M)	40' (12.2 M)
315	Lay-Up	1,000' (304.8 M)	25' (12.2 M)

CRANES

CRANE	TYPE	SERVICE TO	LIFT CAPACITY
1	Whirley	Dry Dock 3 Berths 309, 310	50 Tons
1A	Whirley	Dry Dock 3 Berths 309	90 Tons
2-8	Whirley	Dry Dock 1 Berths 301-305	50 Tons
9	Whirley	Dry Dock 3	29 Tons
11	Whirley	Dry Dock 4	22 Tons
12	Whirley	Dry Dock 4 Berths 312-314	112 Tons
14	Whirley	Dry Dock 4 Berths 312-314	134 Tons
15-17	Whirley	Dry Dock 4 Berths 312-314	84 Tons

DRY DOCKS:

Dry Dock #4: This is the largest dry dock on the North American Coast and the largest floating dry dock on the Pacific Rim. It serves ships to 275,000 DWT and has been in operation since 1979. Its features include:

- 6' 0" minimum block height.
- Drive-on ramp - highway rated.
- Five worker access ramps.
- Pontoon deck and wing wall lighting.
- Lift capacity of 87,000 long tons (82,296 metric tons).
- Overall length of 982 feet (299.3 meters).
- Clear width of 185 feet (56.4 meters).
- Length over keel blocks of 902 feet (274.9 meters).
- Depth over keel blocks of 35 feet (10.7 meters).
- Crane service from 4 cranes up to 134 tons or 246 combined tons.
- Four traveling manlift stages.

Dry Dock #3: This is a Rene Steel type dock which can handle vessels in excess of 800 feet in length and up to 70,000 DWT. It was designed to handle all Panamax size ships. Its features include:

- Lift capacity of 27,000 long tons (27,428 metric tons).
- Overall length of 661 feet (201.5 meters).
- Clear width of 114 feet (34.8 meters) between wing walls.
- Length over keel blocks of 601 feet (183.2 meters).
- Depth over keel blocks of 32.5 feet (9.9 meters).
- Crane service from 3 cranes up to 90 tons or 140 tons combined.

Dry Dock #1: This is a Harris Steel type dock which is leased from the Navy. Its features include:

- Lift capacity of 15,000 long tons (15,238 metric tons).
- Overall length of 598 feet (182.3 meters).
- Clear width of 88 feet (26.8 meters) between wing walls.
- Length over keel blocks of 528 feet (160.9 meters).
- Depth over keel blocks of 27.8 feet (8.5 meters).
- Crane service from 3 cranes up to 50 tons or 100 tons combined.

SERVICES AND UTILITIES:

Full services are provided at all three dry docks and the working berths. The lay-up berths are provided with electricity and water only. The various types of services are summarized below:

Compressed Air: Two inter-connected plants produce clean, dry, oil-free compressed air for the entire yard. The compressor plant produces 16,800 scfm at 125 psi.

Electricity: AC is available at 440-480 VAC, 3-phase and up to 3,200 Amps. DC is available at 120-240 VDC up to 1,200 Amps. All dry docks and berths have ship service stations for 120, 240 and 480 VAC equipment. Berth laydown areas also have access to all voltages.

Natural Gas/Oxygen: Natural gas is delivered at 4,000 scfm with 15 psi at the meter and 5 psi at the outlet. Oxygen is delivered at 6,000 scfm and 100 psi.

Sewer Disposal: Sewer disposal connections are located at most berths and dry dock 4.

Foreign Garbage: The daily capacity is 150 cubic feet with sterilization capability through a heating process.

Steam: The yard plant with two, 500 hp boilers provides psig saturated steam.

Water: Potable water is available at each berth at 2,000 gpm and 85 psi. River water is available at 1,000 gpm and 125 psi.

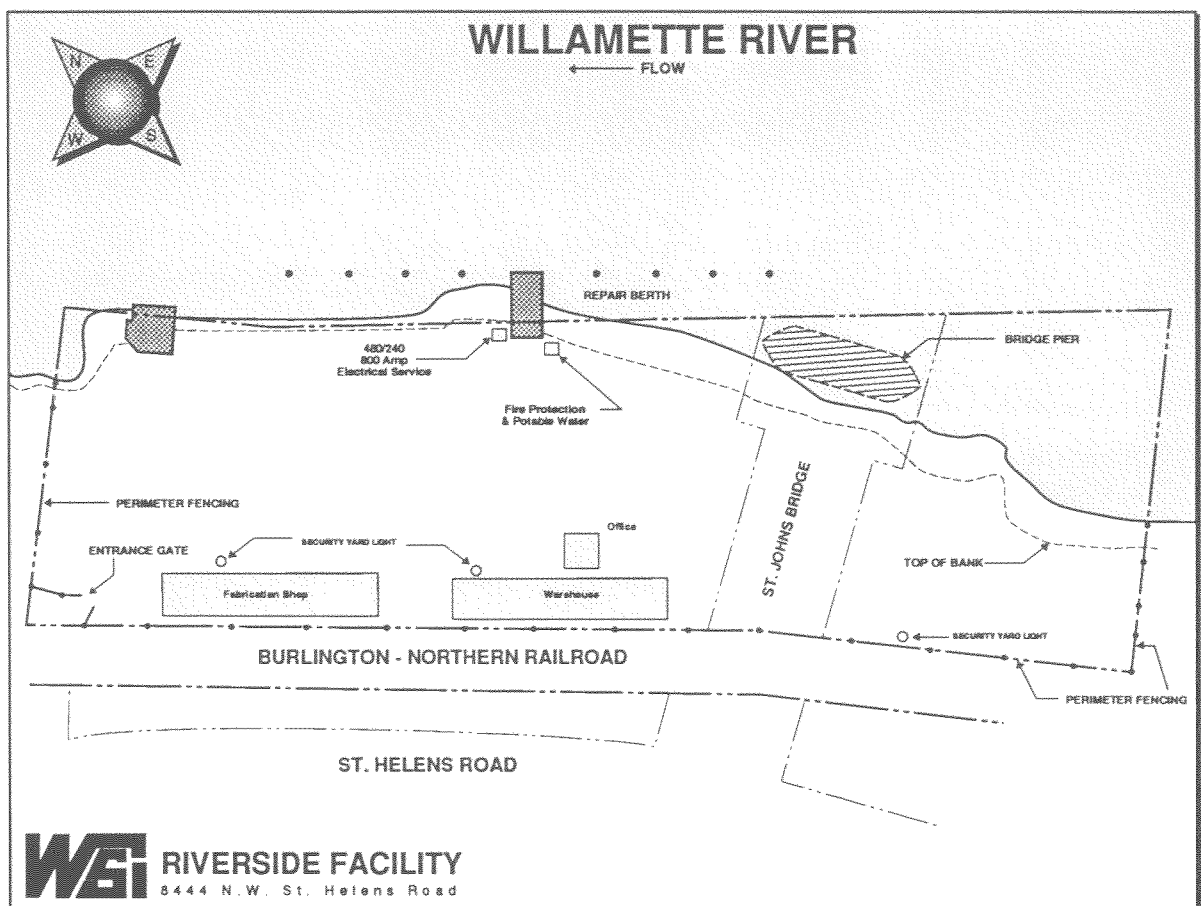
Water Ballast Treatment: The yard's ballast water treatment plant provides an excellent means to handle oily waste within local, state, federal and international maritime regulations. The complete system includes eight connection stations, receiving lines, holding tanks, a heating plant, decant tanks, separators, processed water storage, oil storage and a water quality testing laboratory. Dry dock 4 and berth 312 have 16" ballast lines while all other locations have 8" lines. The reclaimed oil is recycled. The disposable water is either pumped through the city sewer system or directly into the river depending on the water quality.

Storage:	Slops	157,000	bbls
	Recycled Oil	11,500	bbls
	Disposable Water	30,000	bbls
	Rain Water	1,800	bbls
	Maximum Capacity	200,000	bbls
	Receiving Rate	3,000	bbls/hr

Riverside Facility

This facility has a warehouse, fabrication building and two piers. The entire area is fenced and well illuminated at night. There is fire protection and potable water available along with electrical services. This location is only a few minutes drive from our headquarters and is supplied with remote terminals connected to our main computer system. This allows the same control and access to job cost information that is available at our main facility.

We utilize this location for topside repair work that does not require the full facilities of Swan Island or for the lay-up of smaller vessels such as barges and tugs. This allows us to provide a more cost effective solution to those customers who do not require the more elaborate equipment located at the main Port of Portland facility.





Port of Portland

Catherine Brown

LEGAL DEPARTMENT

12/15/93
1993 DEC 16 AM 9:59

PORT OF PORTLAND

Cary

FYI - Info. provided

by AMC broke

respects other

WSI affiliates -

Regards

CB

ENTITIES1) HC, Inc.

Operations: Holding Company/Parent for other entites
 Date Incorporated: 12/24/87
 Ownership: 100% Doug Watson
 Employees: -0-
 Financial Dealings: Limited

2) WBM, Inc.

DBA: Western Boiler & Mechanical, Inc.

Operations: Boiler repair subcontractor primarily for ship repair and primarily for WSI (80% - 20% others)
 Date Incorporated: 3/28/88
 Ownership: 100% HC, Inc.
 Employees: 2 - 25
 Financial Dealings: Subcontractor Boiler Repairs. Intercompany sales less than 1 Million per year.

3) REH, Inc.

Operations: Holding company for commercial real estate -- "St. Johns" properties. Also owns residential rental properties as well as vehicles and equipment that is leased back to WSI.
 Date Incorporated: 3/28/88
 Ownership: 100% HC, Inc.
 Employees: 3 - 4
 Financial Dealings: Intercompany maintenance charges \$300,000 per year.

4) RIR, Inc.

DBA: Riverside Industrial Rentals

Operations: Inactive, but holds title to equipment that is leased back to WSI.
 Date Incorporated: 1/4/88
 Ownership: 100% HC, Inc.
 Employees: -0-
 Financial Dealings: Less than \$120,000 per year.

5) MFP, Inc.

Operations: Originally formed for a metal fabrication that never got off the ground. Currently performs staging operations, starting in August, 1993.
 Date Incorporated: 3/28/88
 Ownership: 100% HC, Inc.
 Employees: 4 - 7
 Financial Dealings: To date, very limited. Expect to be 1 Million per in the future.

6) Roche Engineering

Operations: Reserach and developement of a hydraulic regenerative system.
There is a patent pending.
Ownership: 50% Doug Watson, 50% Dick Roche (Subchapter S Corporation)
Employees: 1 (Dick Roche--inventor/engineer)
Financial Dealings: WSI employee paid approximately \$70,000 per year. Total
financing dealing less that \$100,00 per year.

7) Astoria Metal Corporation

Operations: Ship Breaking - has acquired right to dismantle USS Hornet.
Business currently in planning phase.
Ownership: 100% HC, Inc.
Employees: 1
Financial Dealings: To date, limited.



Copy: Johnston, Nugent, Newell, Thompson, Dunbar

Port of Portland

Enclosure 5

Box 3529 Portland, Oregon 97208
503/231-5000

July 17, 1992

Mr. William Dunbar
North West Marine
P.O. Box 3109
5555 N. Channel Ave.
Portland, OR 97217

Re: EXXON NORTH SLOPE
Hydraulic Oil Leak

Dear Mr. Dunbar:

This responds to your letter of July 14, 1992.

As you know, paragraph 5.1 of the Facility Agreement between the Port and North West Marine provides that "The Port of Portland shall have no liability to Contractor for lost profits or other consequential damages if the PSRY facilities should malfunction or fail to operate properly." Thus, the Port is not responsible for North West Marine's costs of cleaning the hull of the EXXON NORTH SLOPE or disposing of the cleaning materials.

Paragraph 5.1 further provides that the Port, upon proper notice, "agrees ... to review the impact of equipment failure upon the Port's billing for the use of Port facilities." We have reviewed your request for credit for one lay day. Under the circumstances, however, we have concluded that no adjustment to the Port's billing is warranted. We note that there was a broad range of work still to be accomplished that was completely disassociated with any port side hull coating at midnight on July 10, 1992.

Sincerely,

Jeff Twine, Operations Manager
Portland Ship Repair Yard



Port of Portland offices located in Portland, Oregon U.S.A.
Chicago, Illinois. Washington, D.C., Hong Kong, Seoul, Taipei, Tokyo

PSY500005944



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

January 15, 1993

Mr. Herbert G. Engel
President
Southwest Marine, Inc.
P. O. Box 13308
San Diego, CA 92170-3308

**** CERTIFIED MAIL ****

NOTICE OF ABANDONMENT - BUILDING 73

Dear Mr. Engel:

This letter is to notify you that the Port considers Southwest Marine, Inc. to have abandoned the leased premises consisting of Bay 1 of Building 73 and associated yard space (Port Lease No. 81-53), in that Southwest Marine has failed to occupy the premises for the purposes of surface preparation or painting for at least the past fifteen days. Pursuant to section 6.01-D of the Lease, this action by Southwest Marine constitutes abandonment and entitles the Port to terminate the Lease pursuant to section 6.02. The Port **does not waive** its right to terminate the Lease pursuant to section 6.02, and will inform Southwest Marine at a later date whether the Port chooses to exercise that right.

Sincerely,

Bruce Robeson, Director
Portland Ship Repair Yard

cc: Ed Galligan
Cory Streisinger ✓
Mr. Johnston, NWM, Portland, OR

CORPORATE HEADQUARTERS
Foot of Sampson Street • San Diego, California • 92113
P.O. Box 13308 • San Diego, California • 92170-3308
(619) 238-1000 • TWX: 910-335-1167 SWM SDG • FAX (619) 238-0984



1993 JAN 25 AM 11:01

PORT OF PORTLAND

Certified Mail

January 20, 1993

The Port of Portland
Box 3529
Portland, Oregon 97208

Attention: Mr. Bruce Robeson

Re: Port of Portland January 15, 1993 Notice of Abandonment of
Building 73 and associated yard space; Port Lease No. 81-53

Gentlemen:

This is in response to the referenced correspondence. Southwest Marine, Inc. ("SWM") disputes the Port's allegation that the leasehold premises have been abandoned. SWM has been maintaining all of its surface preparation and painting equipment in the building and has and will continue to use the premises as permitted by the referenced lease. Additionally, rent for the premises continues to be paid on a current basis.

I trust this addresses any concerns you may have. If you desire specific confirmation of our use of the premises, please contact Mr. Johnston or me.

Very truly yours,

[Signature]
Herbert G. Engel
President

Post-It™ brand fax transmittal memo 7671

of pages ▶ 1

To <i>Cory Streisinger</i>	From <i>E. ERLEN</i>
Co.	Co.
Dept.	Phone #
Fax #	Fax #

SOUTHWEST MARINE DIVISIONS: SAN DIEGO • SAN PEDRO • SAN FRANCISCO • SAMOA • NORTHWEST MARINE, PORTLAND, OREGON

PSY500005946

8B 8B
D-220:ERS:ca
NOy-19744
Ser 57241

AUG 19 1959

From: Officer in Charge, Contract NOy 19744
To: Chief, Bureau of Yards and Docks
Via: Commandant, Thirteenth Naval District

Subj: Annual Inspection Summary of Floating Drydock YFD-69 for period ending July 1959 (Report Symbol 11014-1); forwarding of

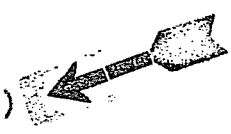
Ref: (a) NAVDOCKS TP-Pw-31 Inspection for Maintenance of Public Works and Public Utilities of June 1958.
(b) Contract NOy 19744, Lease of Floating Drydock YFD-69 to Port of Portland, Portland, Oregon

Encl: (1) Three copies of subject type "D" report

1. Enclosure (1) is forwarded in compliance with references (a) and (b).
2. The overall maintenance of the Floating Drydock YFD-69 is satisfactory and in accordance with terms of the contract.
3. There are no deficiencies listed in the report that require Bureau consideration. Correction of listed deficiencies is the responsibility of the lessee.
4. The lease term of the YFD-69 under Contract NOy 19744 expires 31 December 1959. In accordance with Amendment #2 to the contract, one end section of the drydock will be drydocked for inspection of underwater surfaces. The condition of this end section will determine if the other two sections must be drydocked for painting or repairs. It is presently planned to drydock the end section during the first half of October 1959. This will allow time to drydock the other sections, if needed, prior to expiration of the lease.

G. F. MOBLEY
By direction

Copy to:
CONSERVPAC (w/encl)
DIRPACDIVDOCKS (w/encl)
Port of Portland (w/encl 3 copies)
AIM USN Seattle (w/encl 4 copies)
COMTHIRTEEN, Code 005, (w/encl)



RECEIVED
AUG 20 1959
PORTLAND

PSY500005947

D-220:ERS:hk
Ser 234/70

AUG 24 1959

FIRST ENDORSEMENT on OIC Contract NOy-19744 Ser 57241 of 19 Aug 1959

From: Commandant, Thirteenth Naval District
To: Chief, Bureau of Yards and Docks

Subj: Annual Inspection Summary of Floating Drydock YFD-69 for period
ending July 1959 (Report Symbol 11014-1); submission of

1. Forwarded noting that appropriate action is being taken to comply with contract requirements.
2. On expiration of Contract NOy-19744, 31 December 1959, administrative responsibility for the YFD-69 will be vested in the Assistant Industrial Manager USN, Seattle, Washington, as Bureau of Ships representative.

Copy to:
COMSERVPAC (w/encl)
DIRFACDIVDOCKS (w/encl)
→ Port of Portland (w/encl 3 copies)
ASTINDMAN Seattle 9w/4 copies encl)

S. P. ZOLA
By direction

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>McWilliams</i>
INFO COPY	<i>McLinch</i>
FILE	

RECEIVED
AUG 25 1959
PORT OF PORTLAND

PSY500005948

ANNUAL INSPECTION SUMMARY

FLOATING DRYDOCK

YFD-69

NOy-19744

REPORT BUDOCKS 11014-1

For the Period

Ending

JULY 1959

PART I. General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18 inch freeboard steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under Contract NOy-19744. The drydock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The drydock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three steel guides mounted on the pier.
3. The floating drydock was last self-docked in August 1954. One end section is scheduled to be drydocked during October 1959. The condition of the end section will determine if other sections must be drydocked.
4. Previous inspection was made 7, 8 and 9 July 1958.
5. The Material Inspection Board appointed by the Officer in Charge, Contract NOy-19744, to conduct the Annual Material Inspection of the YFD-69 consisted of Mr. K.R. Burr, Senior Member; Messrs. E.R. Stoopes, V.S. Hagerup and W. E. Gaspar of District Public Works Office, Thirteenth Naval District and Mr. H.L. Feiock of the Port of Portland. The inspection was conducted during the period 13, 14 and 15 July 1959.
6. The following components were placed in preservation without repair at last major overhaul:
None
7. The following equipment is stored ashore: Not applicable.

PART II. Condition.

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>	<u>Grade</u>
Hull (Part II 3)	Excellent
Mechanical (Part II 4)	Good
Electrical (Part II 5)	Good
Fittings (Part II 6)	Good
Utilities (Part II 7)	
Miscellaneous (Part II 8)	Good
Cleanliness	Excellent

(In grading the above items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard.
Good	Possibly some deficiencies but no critical ones. Above required minimum standards.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general, or in any vital detail.

2. Condition marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition satisfactory
U	Condition Unsatisfactory
X	Condition unknown

3. Condition of Hull

Item No.	Item	Condition	
		<u>Current</u>	<u>Previous</u>
	Exterior - Pontoon		
1	Bottom	S	S
	Sides		
2	Below Water line	U	S
3	Water Line	S	S
4.	Above water line	S	S
5	Deck	S	S
	Wingwalls		
6	Outboard face	S	S
7	Inboard face	S	S
8	Ends	S	S
9.	Deck	U	S
	Interior		
10.	Compartment No. 1	S	S
11.	Compartment No. 2	S	S
12.	Compartment No. 3	S	S
13.	Compartment No. 4	S	S
14.	Compartment No. 5	S	S

3. Condition of Hull (continued)

Item No.	Item	Condition	
		Current	Previous
15	Compartment No. 6	S	S
16	" 7	S	S
17	" 8	S	S
18	" 9	S	S
19	" 10	S	S
20	" 11	S	S
21	" 12	S	S
22	" 13	S	S
23	" 14	S	S
24	" 15	S	S
25	" 16	S	S
26	" 17	S	S
27	" 18	S	S
NOTE: Ballast Compartments 3-5-7-9-13-15 and Chain locker were inspected. These compartments were in good shape. 2 - 3 inches of fine silt was found in most compartments.			
28	" 19	S	S
29	" 20	U	S
30	" 21	S	S
31	" 22	S	S
32	" 23	S	S
33	" 24	S	S
34	" 25	S	S
35	" 26	S	S
36	" 27	S	S
37	" 28	S	S
38 & 39	NA		

Ballast

Permanent: Type 0 Amount 0 Tons
 Temporary: Type 0 Amount 0 Tons

Silt: Average depth 0 Ft 2 to 3 "

40 & 41

NA

3. Items 42 to 48 NA

4. Condition of Mechanical Installation

Item No.	Item	No. Installed	No. Inspected	Condition	
				Current	Previous
49	Diesel Engines	0	0		
50	Gasoline Engines	0	0		
51	Boiler: Date last inspected:	0	0		
52-53-54	NA				
55	Air Compressors	1	1	S	S
56-57-58	NA				
	Pumps:				
59	Main Dewatering Pumps	8	8	U	S
60	Fresh water pumps	0	0		
NOTE: Dewatering pumps 1-2-4 starboard side and 1-3 Port side were inspected					
61-62-63	NA				
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	U	S
66 thru 70	NA				
71	Capstans	8	8	S	S
72 thru 76	NA				

5. Condition of Electrical Installation

	Motors				
77	AC	73	25	U	S
78	NA				
79	AC Panelboards (Lighting 8 ea.) (Power 8 ea.)	16	16	S	S
80	DC (Port Side eqpt)	0	0		
81	Control Boards (Starboard ")	2	2	S	S
82	NA				

5. Condition of Electrical Installation (Cont'd)

Item No.	Item	No. Installed	No Inspected	Condition	
				Current	Previous
	Transformers				
83	Lighting	6	6	U	S
84	Power cables	5	5	S	S
85	Power receptacles			S	S
86	Junction Boxes			S	S

6. Condition of Fittings

	Blocking				
87	Fixed Blocks			S	S
88	Hauling Blocks			S	S
89	Outriggers			S	S
90 thru 93	NA				
94	Bollards			S	S
95	Cleats			S	S
96	Chocks			S	S
97	Watertight doors			S	S
98	Hatches			S	S
99	NA				
100	Manholes and Covers			S	S
101	Stairs			S	S
102	Ladders			S	S
103	Handrails			S	S
104	Platforms			S	S
105	Gratings			S	S
106	Sidewall Jacking Equipment			S	S
	Pier Moorings				
107	Spuds			S	S
108	Mooring Guides			S	S
109	Alignment between Pier and Sections			S	S
110	Draft Gages			S	S
111	NA				
112	Fenders			S	S

7. Condition of Utilities

Item No.	Item	Condition	
		Current	Previous
Piping Systems			
113	Dewatering and Flooding		
	Valves and Valve Operators	U	S
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	NA		
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	NA		
124	Lubricating System for Pumps and Bearings	S	S
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S
127 - 128	NA		
129	Compressed Air System	S	S
130	Air Vent System	U	S
Heating and Ventilating System			
131, 132, 133	NA		
134	Vent Valves	S	S
135 thru 140	NA		
Lighting System			
Interior			
141	Fixtures	S	S
142	Circuits	S	S
Exterior			
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	NA		

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Communication System		
147	NA		
148	Telephone System	S	S
149	Loud Speaker System	S	S
150	General Alarm System	S	S
	Water Level and Draft Indicator System		
	Type: Pneumator-Pneumatic Electric, Bristol Company		
151	Previous Inspection and Repair by Manufacturer: August 1954		
	Scheduled date of Next Inspection by Manufacturer: Unknown		

Miscellaneous Steel Tanks

152 thru 155	NA		
156	Lube Oil Tanks	S	S
156 A	Vacuum Pump Tanks (4)	S	S

8. Condition of Miscellaneous Installations

157	Brows	S	S
158	NA		
159	Clinometers	S	S
160-161	NA		
162	Life Saving Equipment		
162	Life Rings	S	S
163 - 164	NA		

9. Dry Dock Basin. Soundings taken at the drydock basin on 16 July 1959 with the River Gauge at 10.3 elevation, are as follows:

		<u>Soundings</u>	<u>Elevation based on 0.0 Gauge</u>
Port Side	Forward	57.2'	46.9'
Starboard Side	Forward	57.7'	47.4'
Port Side	Amidships	58.6'	48.3'
Starboard Side	Amidships	58.5'	48.2'
Port Side	Aft	59.4'	49.1'
Starboard Side	Aft	59.7'	49.4'

Soundings indicate sufficient depth to operate the dock
at all stages of the river

10. Submergence Test. The submergence test was made on 14 July 1959 at 0815. The drydock was submerged to a depth of 25.5 feet over the four-foot keel blocks and was allowed to stand at this depth for 30 minutes, during which period no leakage was noted except around the cross-over power cables, where the cables pass through the safety deck on the starboard side. Pumps were started at 0915, and the drydock was raised to a light-draft position. The total time required to dewater the drydock was 50 minutes and the craft emerged with no signs of sluggishness.

11. Careening. The drydock was careened both ways exposing approximately eight feet of bottom on the port side and nine feet on the starboard side. The exposed portions were found to be in excellent condition with no corrosion or marine growth. Blister rust was noted on the sidewall between the flooding inlets near the after end on the port side. Blister rust was also noted on the spuds. The overhead surfaces of the self-docking recesses on the starboard side are rusted.

12. Maintenance and Project List. None

13. Improvements. None

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	<u>Estimated Cost</u>
2	Blister rust between flooding inlets near after end, Port Side Overhead surfaces of self-docking recesses, Starboard side, are rusted	Coat with heavy exterior-type preservative Coat with heavy exterior-type preservative	\$100. \$250.
9	Rusted areas were noted on safety deck on starboard side The seal on pump hatch cover, forward end section, Port Side, has deteriorated	Paint rusted areas . Provide new seal.	\$500. \$ 35.
29	Approximately one inch of water was noted in buoyancy Chamber No. 20. Evidence of leaks through 12 inch gate valve was noted.	Secure valve to a tight holding fit and dry out chamber	
59	Packing glands under pump motors on Machinery Deck are leaking at pumps Nos. 1-S and 3-S	Tighten gland on Pump No. 1-S Repack gland on Pump No. 3-S	
77	Pump Motors Nos 2 and 4 Port side are leaking grease from lower bearing oil seal Note: Megger readings on all 73 electric motors are within acceptable limits	Check grease retainer seal and check grease quantity.	
107	Blister rust was noted on all three spuds	Coat with heavy exterior type preservative	\$150.
83	A small amount of oil is leaking from transformers at Frame 27- Port and Starboard sides	Check bushings for leaky gasket.	

PART III. (Cont'd)

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	<u>Estimated Cost</u>
113	Packing gland under the control for the 30" suction valve at Ballast Compartment No. 11, leaks water. The Universal joints on valve control rods need lubricating. Guide bearings and rods on Rising Stem Valves need greasing.	Repair water leak. Adjust and lubricate controls.	
130	Vacuum breather valve in NW end of pump room (#4 port) leaks water when deck is submerged.	Locate cause and repair leak	
151	Plugs in deck for measuring water in compartments 13 - 14 open into a pipe instead of compartment	Install new plugs into compartments. Make certain new locations will clear structural members and piping	

PART IV. Deficiencies Noted in Previous Reports

All deficiencies noted in the previous report have been corrected.

NOTE: Ref: Part III, Item 65
Automatic Grease Pumps
New lubrication distributors have been procured by Lessee for installation on eight dewatering pumps.

Floating Drydock YFD-69 - Material Inspection of - 13-15 July 1959.

PART V. Certification and Signatures.

This report is the result of a joint inspection made by representatives of the District Public Works Officer, Thirteenth Naval District, and representatives of the contractor.

K. R. BURR
K. R. BURR
Senior Member of Board

H. L. FEIOCK
H. L. FEIOCK, Dockmaster
Port of Portland

E. R. STOOPES
E. R. STOOPES, General Engineer
District Public Works Office, 13ND

V. S. HAGERUP
V. S. HAGERUP, Civil Engineer
District Public Works Office, 13ND

W. E. GASPAR
W. E. GASPAR, Mechanical Engineer
District Public Works Office, 13ND

ATTACHMENT NO. 2

COMPARATIVE READINGS OF CONTAINED WATER

<u>Compartment Number</u>	<u>Indicator Reading</u>	<u>Actual Water Level</u>	<u>Difference</u>
1	13.6	13.4	.2
2	12.9	13.2	.3
3	13.3	13.1	.2
4	12.6	13.2	.6
5	10.1	9.9	.2
6	9.9	9.6	.3
7	9.6	9.8	.2
8	10.0	9.6	.4
9	9.1	9.	.1
10	9.3	9.7	.4
11	9.2	9.	.2
12	8.9	9.6	.7
13	10.0	10.8	.8
14	10.2	10.3	.1
15	10.9	10.6	.3
16	10.3	9.9	.4
Forward Draft	15.2	15.2	.0
Aft Draft	15.4	15.2	.2

ATTACHMENT NO. 3

TABLE OF THICKNESS MEASUREMENTS

"B" Side (Port) Wingwall Deck

		<u>Original Thickness</u>	<u>Thickness</u>
Center Line	Aft End	.437	.414
of Deck	Amidship	.437	.414
	Frame 60	.437	.414

"A" Side (Starboard) Wingwall Deck

Center Line	Aft end	.437	.430
of Deck	Amidship	.437	.446
	Frame 59	.437	.430

Pontoon Deck

Center Line	between Frames 47 and 48	.437	.430
1' from wingwall	Inboard (fwd) End Section	.500	.464
Port Side	between Frames 46, 47	.375	.362
	between Frames 12, 13	.375	.374
1' from Wingwall	between Frames 8, 9	.375	.386
Starboard Side	between Frames 24, 25	.500	.414
	between Frames 59, 50	.500	.405

Top of Self-Docking Shelf

Center of	Port Side Forward		
Deck	end	.375	.386

Port Wingwall - Inboard

2' above Pontoon	between Frames 51-52	.375	.374
Deck	" " 12-13	.375	.374
	Aft (West) end Section	.375	.374

Starboard Wingwall-Inboard

2' above Pontoon	Aft (West) End Section	.375	.374
Deck	Between frames 12-13	.375	.374

NOTE: Audiguage readings indicate that some plates are "off-size."

75

DISTRICT PUBLIC WORKS OFFICE
THIRTEENTH NAVAL DISTRICT
BLDG. 250, U. S. NAVAL STATION
SEATTLE 99, WASHINGTON

AT-3-5200

In reply refer to:
D-220:ERS:hk
Ser 57311

2 December 1959	
CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>M. L. Linsien</i>
INFO COPY	
	<i>M. Feiock</i>
	<i>Mr. L. L. Linsien</i>
FILE	12-4-9

From: Officer in Charge, Contract NOy-19744
To: Distribution List

Subj: Floating Drydock YFD-69; appointment of Board of Inspection for

Ref: (a) Contract NOy-19744
(b) BUDOCKS ltr C 314E/sd NOy-75454 of 5 Oct 1959

1. By virtue of the authority vested in the Officer in Charge, Contract NOy-19744, by the Chief, Bureau of Yards and Docks in reference (a), a Board of Inspection is hereby appointed to inspect, examine and report on the condition of the U.S. Navy Floating Drydock YFD-69, located at the Port of Portland, Portland, Oregon, beginning 7 December 1959. The Board of Inspection will consist of Mr. Kenneth R. Burr, Senior Member, Mr. Lawrence L. Coombs, Mr. William E. Caspar and Mr. Vincent S. Hagerup, representing the Officer in Charge, Contract NOy-19744. Mr. Walter L. Seth and Mr. Floyd E. Morningstar will represent the Assistant Industrial Manager USN, Seattle.

2. Mr. H. L. Feiock has been assigned by the Port of Portland to act with the Board.

3. The Maintenance Division, District Public Works Office, Thirteenth Naval District, is directed to provide the necessary clerical assistance in the preparation of the condition report.

MBC

DISTRIBUTION LIST (DEWO 13ND)
Mr. Kenneth R. Burr (D-200)
Mr. Lawrence L. Coombs (D-220)
Mr. William E. Caspar
Mr. Vincent S. Hagerup

ASTINDMAN, Seattle
Mr. W. L. Seth
Mr. F.E. Morningstar
Copy to:
EUSHIPS
BUDOCKS
Port of Portland (2)

PSY500005964

DEPARTMENT OF THE NAVY
DISTRICT PUBLIC WORKS OFFICER, 13ND
AND
OFFICER IN CHARGE OF CONSTRUCTION

BLDG. 250, U.S. NAVAL STATION
SEATTLE 99, WASHINGTON

AT-3-5200

IN REPLY REFER TO:
D-220:ERS:ca
Ser 57318

DEC 2 1959

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>Mr. Bauer</i>
INFO COPY	
	<i>Mr. Heinerman</i>
	<i>Mr. Fierock</i>
	<i>Mr. Lindsay</i>
	<i>Mr. Tatum</i>
FILE	12-3-9 31

Port of Portland
Swan Island
P.O. Box 4099
Portland 8, Oregon

Gentlemen:

Your letter of November ¹⁸~~19~~, 1959 advising of the satisfactory completion of drydocking and repair of one end section of the YFD-69 is acknowledged. Your letter also advised that actual costs of drydocking one end section and estimated costs of drydocking the center section and other end section would be available by December 10, 1959.

When the above mentioned costs are available it is requested that the Port of Portland forward, for consideration by the Officer in Charge, an estimate of payment due to the Government for omission of drydocking one center section and one end section of the YFD-69. Contract NOy 19744, Amendment No. 2, Item C requires that the lessee shall pay to the Government, on or before 31 December 1959, a sum equal to the estimated cost of drydocking any remaining sections not dry-docked. The contract further provides that this estimated cost shall be determined by agreement between the Contracting Officer and the Lessee.

The final inspection of the YFD-69 will be conducted by representatives of the Officer in Charge; Assistant Industrial Manager USN Seattle, and the Port of Portland during the period 7 - 11 December 1959. It is anticipated the inspection party will convene at the Port of Portland at 1300 on 7 December 1959. Mr. Hal Feiock has been designated to serve on the board as representative for the Port of Portland.

Yours truly,



K. R. EUER
Director, Maintenance Division
By direction of DPMO

PSY500005965

JB
8B

DEPARTMENT OF THE NAVY
DISTRICT PUBLIC WORKS OFFICER, 13ND
AND
OFFICER IN CHARGE OF CONSTRUCTION

BLDG. 250, U.S. NAVAL STATION
SEATTLE 99, WASHINGTON

AT-3-5200

IN REPLY REFER TO:

D-220:ERS:ca
Ser 57208

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>Mr. Deuch</i>
INFO COPY	
	<i>Mr. Munro</i>
	<i>Mr. Timmerman</i>
FILE	<i>7/30/9 6</i>

JUL 28 1959

Port of Portland
5848 North Lagoon Ave.
Swan Island
Portland, Oregon

Gentlemen:

During the period of 13 July to 15 July 1959 the Annual Material Inspection of the U. S. Navy Drydock YFD-69 was conducted at the Port of Portland by representatives of the Officer in Charge, Contract NOy 19744.

This letter confirms the verbal agreement made at that time between Mr. J. J. Winn and Mr. H. L. Feiock of the Port of Portland and Mr. E. R. Stoores, representative of the Officer in Charge, that one end section of the drydock will be drydocked during the first half of October 1959 in accordance with requirements of paragraph c. (i) of Amendment No. 2 to Contract NOy 19744. As is indicated in the Amendment, the Officer in Charge will determine on the basis of the condition of the underwater surfaces of the one section drydocked whether or not the other two sections will have to be drydocked for cleaning, painting, and repair. It is believed the outboard end section of the drydock would be the most representative and most convenient to drydock for inspection purposes. It is suggested also that the Port of Portland have a supply of drydock paint available for touch up purposes for the end section if it is found that complete painting is not required.

It is requested that the Officer in Charge be given one week advance notice of the date the end section will be ready for inspection. If surfaces of the hull are washed clean the inspection should not require over one day to complete.

Very truly yours,

C. F. Mobley

C. F. MOBLEY
By direction

PSY500005966

DEPARTMENT OF THE NAVY
DISTRICT PUBLIC WORKS OFFICER, 13ND
AND
OFFICER IN CHARGE OF CONSTRUCTION

BLDG. 250, U.S. NAVAL STATION
SEATTLE 99, WASHINGTON

AT-3-5200

IN REPLY REFER TO:
D-220:ERS:ca
Ser 57280

Port of Portland
Swan Island
P.O. Box 4099
Portland 8, Oregon

Gentlemen:

This confirms the new date of 2 November 1959 for drydocking the end section of the YFD-69 as established by your letter of 25 September 1959. A representative of the Officer In Charge, Contract NOy-19744, will be at the Port of Portland on that date to conduct the inspection of the drydock hull.

It will be appreciated if prompt notice is given of any further change in the docking date of 2 November 1959.

Very truly yours,



K. R. BURR
Director, Maintenance Division
By direction of DEFO

OCT 5 1959

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>Handwritten initials</i>
INFO COPY	
FILE	10-6-9 1

PSY500005967

DEPARTMENT OF THE NAVY
DISTRICT PUBLIC WORKS OFFICER, 13ND
AND
OFFICER IN CHARGE OF CONSTRUCTION

BLDG. 250, U.S. NAVAL STATION
SEATTLE 99, WASHINGTON

AT-3-5200

IN REPLY REFER TO:
D-220:ERS:ca
Ser 57252

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>Mr. Bauer</i>
INFO COPY	
	<i>Mr. Neumann</i>
	<i>Mr. Leisch</i>
	<i>Mr. Munn</i>
FILE	8-31-9 5

AUG 28 1959

Port of Portland
Swan Island
PO Box 4099
Portland 8, Oregon

Gentlemen:

The proposed specification for painting the outboard end section of floating drydock YFD-69 has been reviewed by the Officer in Charge, Contract NOy 19744 and is approved. Also the use of hot plastic finish coat mentioned in paragraph 2 of your letter of 21 August 1959 is concurred in. The proposed date of 1 October 1959 for inspection of the drydock hull is noted and a representative of the Officer in Charge of Construction will be present at that time. It is presumed that the Port of Portland will also have a representative participate in the inspection.

It is requested that an account of costs for drydocking one end section be maintained by the Port of Portland and that a copy thereof be furnished to the Officer in Charge of Construction. These costs will be of help in arriving at an agreement between the Contracting Officer and the lessee as to payment due the Government if the other two sections of the drydock are not drydocked.

It will be appreciated if prompt notice is given of any change in the docking date 1 October 1959.

Very truly yours,



K. R. BURR
Director, Maintenance Division
By direction of DEWO

RECEIVED
DISTRICT PUBLIC WORKS OFFICER
PORT OF PORTLAND

PSY500005968

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS
27 WILLIAM STREET
NEW YORK 5, N. Y.

812 8

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	<i>Mr. Winn</i>
INFO COPY	
FILE	9-25-9 /

September 23, 1959

Y-395-6

Mr. John J. Winn, Jr.
General Manager
The Port of Portland
P. O. Box 4099
Portland 8, Oregon

Dear Mr. Winn:

I am enclosing copy of the Inspection Report prepared by Mr. H. E. Landre for the U. S. Navy 14,000 Ton Floating Dry Dock, YFd-69, dated August 26, 1954.

I am also forwarding a separate copy to you at the Statler Hotel, Washington, D. C., in the event this does not reach you at Portland in time.

I trust that the above information is that which you have in mind and looking forward to seeing you soon.

Best regards.

Sincerely,

C. J. Murphy
C. J. Murphy

cc: Mr. John J. Winn, Jr.
Statler Hotel
Washington, D. C.

Encl.

FREDERICK R. HARRIS, INC.

CONSULTING ENGINEERS

27 WILLIAM STREET
NEW YORK 5, N.Y.

FREDERICK H. DECHANT, P.E.
CHAIRMAN OF THE BOARD

EDWARD J. QUIRIN, P.E.
PRESIDENT

EUGENE H. HARLOW, P.E.
VICE PRESIDENT

BAKER & SPENCER, INC.
C. G. SPENCER

TELEPHONE HANOVER 2-9115

CABLE ADDRESS - HARKOB

August 26, 1954

Inspection Report

U. S. Navy 14,000 Ton Steel Floating Drydock

YFD-09

Port of Portland, Swan Island, Portland, Oregon

Inspection Date: August 2, 1954 - Inspected by H. M. Landre

The inspection of the dock was made in connection with and during self-docking operations of the dock.

Ballast Tanks and Buoyancy Chambers

All ballast tanks were entered and inspected. The condition of the tanks were found excellent. No signs of active corrosion or pitting. The ballast tanks were clean, no evidence of structural failure or damage, and in excellent state of preservation.

Measurements of the steel members was not considered necessary.

During docking of center section all pumps, valves and water level indicators were found in good operating condition. Entire operation was satisfactory.

When the center section was in docked position the underwater body was inspected and found in excellent condition.

The exterior surface of the hull above the water line was inspected. No indentations or signs of structural damage was noted. Condition of preservation was good.

General Physical Condition of the Drydock

Condition of the drydock, including safety deck areas, and all equipment is very good and it is my opinion that allowing for normal use, for the period that this drydock has been in the care of the Port of Portland, the condition of this drydock is superior to that of similar drydocks that have been inspected by me.

H. M. Landre

PSY500005970



GENERAL CONSTRUCTION COMPANY

GENERAL CONTRACTORS

4850 N. W. FRONT AVENUE
BOX 3860

PORTLAND 8, OREGON

June 2, 1959

21-2

CORRESPONDENCE DISTRIBUTION	
ACTION COPY	
INFO COPY	
<i>Charleson, Superintendent</i>	
<i>Neubauer</i>	
<i>Marbleton, Gen</i>	
FILE	6/3/59 7

The Port of Portland
P. O. Box 4099
Swan Island
Portland 8, Oregon

Attention: Mr. John J. Winn, Jr., General Manager

Gentlemen:

Persuant to your letter of May 29, 1959, we are interested in obtaining permission to dispose of dredged material from the Portland harbor area at your old Swan Island Ways. This material would be clean material, as discussed with your Marine Superintendent, Mr. Charleson, and would not be objectionable material for the suction dredge to pump. We would like to obtain this permission to dump on a continuing basis as the use of this dumping area is on an intermittent basis involving small quantities of material from many different locations. Our past agreement called for a twenty cent (20¢) per yard charge, which we, of necessity must pass on to our customer. It is hoped that this charge can be reduced in a new agreement.

In addition to the above requested dumping area, we are desirous of obtaining a location to dispose of "unsuitable" material such as is obtained from dredging in log ponds. This material has and is being used by some private individuals as fill material, but these locations are available only on a part time basis, and do not adequately serve their purpose as an established dumping area. Our discussion with Mr. Charleson indicated that we might be able to also obtain permission to place this "objectionable" material on high ground just inside the Swan Island Lagoon, which area we and others have used for this material on occasions in the past.

Your cooperation in this matter is urgently requested, and your past cooperation greatly appreciated. For your information I am enclosing a copy of Colonel Winegar's letter of April 15, 1959, regarding this same problem, and will advise him of this request.

Very truly yours,

GENERAL CONSTRUCTION COMPANY

H. A. Dick, Jr.
H. A. Dick, Jr.
Vice President

cc: Col. W. L. Winegar, Dist. Engineer

Enclosure

HAD/vl

PSY500005971

8B
8B
November 18, 1959

Officer in Charge of Contract No. NOy 19744
Thirteenth Naval District
Seattle Washington

Gentlemen:

SUBJECT: Contract No. NOy 19744 for Lease of Navy Dry Dock YFD-69

Reference is made to Contract No. NOy 19744, Amendment No. 2, Item C, which reads in part: "...If, pursuant to the direction of the Contracting Officer, all sections of the dry-dock have not been drydocked during the term of this lease extension, then the Lessee shall pay to the Government, on or before 31 December 1959, a sum equal to the estimated cost of drydocking (excluding any repair or painting of the remaining section or sections now drydocked)..."

In accordance with the same item in Amendment No. 2, the dry-docking and repair of one end section of the dock have been completed to the satisfaction of the representatives from the ALM and the representative of the Officer in Charge of Contract No. NOy 19744. The Port plans to have available the actual costs of drydocking the aforementioned section and estimated costs of dry-docking the center section and other end section by December 10, 1959.

We will await further instructions on this matter.

Yours very truly,

THE PORT OF PORTLAND



JOHN J. WINN, JR.
General Manager

8B
JJB:cma

cc: Mr. Heineman
Mr. Feiock

PSY500005972

8B
812
September 25, 1959

Officer in Charge of Contract NOy-19744
Thirteenth Naval District
Seattle 99, Washington

Dear Sir:

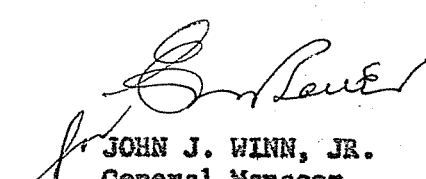
SUBJECT: Dry Dock YFD-69 Inspection.

The above dry dock will be available for inspection on November 2nd. This arrangement supercedes the October 1st date suggested in our previous letter of September 9th.

It should be noted that the change in date is due to the continuing strike action and also representations made to the Port by the Navy regarding the drydocking of the USS TALLADEGA and USS CAVALIER immediately the strike is over. (Reference your YFD Ser. 2105-1577 of Sept. 24, 1959)

Very truly yours,

THE PORT OF PORTLAND


JOHN J. WINN, JR.
General Manager

HA
MEM:mb

bcc: H.L. Feiock

PSY500005973

8 B
4 B
October 19, 1959

Officer in Charge of Contract NOy-19744
Thirteenth Naval District
Seattle 99, Washington

Dear Sir:


SUBJECT: Dry Dock YFD-69 Inspection.

As shown by the schedule in the attached Addendum No. 2, the resumption of normal shipyard activity this morning enables us to reset the date for inspection of dry dock YFD-69 on November 5, 1959. This date allows for drydocking the USS TALLADEGA and the USS CAVALIER during the remainder of this month as requested by Capt. McClain, ADM at Seattle.

Mr. H.L. Feiock, dockmaster, will be in charge of the inspection for the Port, and will be ready to start at 8 a.m. Monday, November 5, 1959, in company with your representative. Mr. Feiock has been instructed to keep a record of the cost of self-docking one end section as requested by your letter of August 28, 1959.

Very truly yours,

THE PORT OF PORTLAND


JOHN J. WINN, JR.
General Manager


AB:mb

bcc: H.L. Feiock
E. W. Bauer

PSY500005974

21-2
21-2

July 20, 1959

SUBJECT: General Construction Company's Request for Disposal of Material at Tip of Swan Island

Reference our conversation Thursday, concerning General Construction Company's request to dispose of approximately 5,000 yards of clean material at the tip of Swan Island in the area of the old ways. The decision to allow this dumping in accordance with a previous agreement with the same company for the same area was relayed to Mr. Dick. In the meanwhile, Mr. Dick was given a free disposal area by the Corps of Engineers off the banks of Sauvie Island and, consequently, withdrew his request to the Port.

General Construction Company wrote to The Port of Portland on June 2, 1959, a copy of this letter attached, requesting a disposal area for small quantities of clean material as well as a dumping area for unsuitable material. Said letter further requested that The Port of Portland take another look at the 20¢ per yard charge toward the possibility of reducing or eliminating same. The above request from General Construction Company again points to the fact that we should have a policy concerning certain permissible dumping areas.

It is recommended that local marine contractors be given the right to dispose of the following materials at the following locations as a service to the maritime industry of this area in the form of dredging and cleaning of river bottom areas near dock fronts and other areas within the Portland harbor:

- (1) Unsuitable material, which includes concrete, rock, rubble, bark, and other similar materials, may be disposed of on the northern bank of the Swan Island lagoon entrance below Portland University, inside of the harbor line. Such material may be dumped in the water with bottom-dump barges if it is picked up and placed above the mean water line on the beach, all work to be done to the satisfaction of The Port of Portland, and no charge to be made for this dumping privilege.
- (2) Clean, acceptable material such as sand and small gravel which may be easily rehandled with the Port dredging equipment may be deposited inside of the harbor line on the westerly tip of Swan Island in the area of the old ways. The previous charge of 20¢ per yard was made to cover the cost of future rehandling by the Port dredging equipment. This future rehandling is not anticipated, but a certain amount of this

PSY500005975

General Construction Company's Request for Disposal of Material at Tip
of Swan Island

7/20/59

Page 2

material will sluff back into possible future dredging areas. It is therefore recommended that a 10¢ per yard service charge be levied for this dumping privilege. It should also be understood that this area is to be used for small amounts of yardage not to exceed 10,000 yards for any one permit. Excessive amounts of yardage may be deposited in this area, but at the full rehandling charge of 20¢ per yard.

 RN:mh

TO: JOHN J. WINN, JR.

cc: M. H. Munro

C-6100/GWW:spjk
NOy-19744

Amendment No. 4

The Port of Portland
Portland, Oregon

JAN 15 1959

Subj: Contract NOy-19744 for Lease of Floating Drydock YFD-69

Gentlemen:

Part B of Amendment No. 3 to the subject lease is hereby amended by the addition of the following as Item 3:

"Replace eight (8) obsolete lubrication distributor sets on the dewatering pump bearings with eight (8) new sets and furnish one (1) spare set."

Except as herein modified, the terms and provisions of the subject lease shall remain in full force and effect.

Very truly yours,

B. J. Katz

B. J. Katz
Director, Contracts Division
For Chief, Bureau Of Yards & Docks
Contracting Officer

SIGN & RETURN 2 COPIES

ACCEPTED: , 1959

FORT OF PORTLAND

By _____
Type Name and Official Title

0 - The Comptroller General
CC - OIC, NOy-19744 (DPWD 13ND)
CC - Bureau Contract

PAYMENTS WILL BE MADE BY CHECK PAYABLE TO THE TREASURER OF THE UNITED STATES AND DELIVERED TO THE OFFICER IN CHARGE OF CONTRACT NOy-19744, THIRTEENTH NAVAL DISTRICT, SEATTLE, WASHINGTON

ORIGINAL

PSY500005977

Received by

letterhead from PIO, 13th Naval Dist., Seattle 15, Wash.

For Release 2:30 Thursday

The Navy will renew the lease of the floating dry dock (YFD-69) to the Port of Portland, Oregon for a term of five years.

Rear Admiral R.K. James, USN, Chief of the Navy's Bureau of Ships, has invited Mr. Dennis Lindsay, president of the Port of Portland, to Washington to formalize the terms of the lease, including exact determination of the cost.

The 14,000-ton steel three-section dry dock was built at an original cost of \$3,560,000. The dock has been leased to the Port of Portland since December, 1949.

###

PSY500005978

November 10, 1959

SBg B

SUBJECT: Navy Dry Dock Inspection

The Navy Dry Dock was inspected this date by Mr. Ken Burr for the Navy in accordance with Article 4 of the lease as amended by Amendment No. 2. In addition to Mr. Burr, Messrs. W. L. Seth and F. E. Morningstar were present as observers from ADM, who will take over administration of the lease 1 January 1960. Mr. Feiock and I accompanied the party, also.

As a result of this inspection, we are being directed to sandblast all loose paint, rust and scum from approximately 6 percent of the bottom surface and paint with two primer coats and hot plastic. (Estimated cost \$700.) In addition we are being directed to sand sweep all loose scale and loose paint on the three ends of sections now exposed -- the two ends of the section dry-docked plus the stern end of the center section, which is exposed to about the 6.5-foot draft line. (Estimated cost \$1360.) All of the above is considered the underwater portion, since it is not normally exposed without self-docking.

Bids are being taken in accordance with the above for opening at 10:00 a.m. November 11, 1959. The fact that this falls on somewhat of a holiday was checked with Mr. Tatum and he could see no objection to this fact.

It was the opinion of all present that the paint in general was in good condition and in accordance with the lease requirements, the remaining two sections will not require dry-docking at this time.

The paint deterioration of the sides of the end section now dry-docked were not considered a pertinent part of this inspection, since they can be exposed without self-docking. It is believed that the painting of at least the two-foot strip at the waterline should be accomplished while the section is on the dry dock. (Estimated cost \$320.) This work is considered general maintenance and can be accomplished at this time at less than half the cost if it were in the water.

 AJH:bb

TO: JOHN J. WINN, JR.

**cc: Mr. Neumeister
Mr. Feiock**

PSY500005979

*MM Dealie
To rec'd with
return of
government
7/17-50*

*Inspection
report*

DC-330:Lz
NOy-19744
Serial 40110
11 July 1950

From: Officer in Charge, Contract NOy-19744
To: Chief of the Bureau of Yards and Docks

Subj: Annual Inspection of Floating Dry Dock YFD-69, Swan Island,
Portland, Oregon - Report on

Ref: (a) Contract NOy-19744, Lease of Floating Dry Dock YFD-69

Encl: (1) Orig and one copy of subj report

1. Enclosure (1) is forwarded herewith for review in compliance with reference (a).

2. It is noted that high water in the Willamette river prevented an inspection of the ballast compartments and the underside of the hull of subject dry dock; however, these items were inspected in December 1949 and found to be in good condition. The overall maintenance of the dry dock was found to be satisfactory.

A. C. EBERHARD

Copy to:
Port of Portland

F. L. ENDEBROCK
By Direction

*a/c sent H. J. Davis 7/19
per J. Dealie's report*

ANNUAL INSPECTION
OF THE
THREE PIECE STEEL 14,000 TON DRYDOCK YFD-69
MOORED AT THE PORT OF PORTLAND SITE ON SWAN ISLAND, PORTLAND, OREGON

Inspection of the drydock was accomplished on 7 and 8 June 1950, by Mr. D. M. Caddell and Mr. W. S. Larsen representing the District Public Works Officer, and Mr. J. Healy, Superintendent, and Mr. H. Feilock, Dockmaster, representing the Port of Portland.

At the time of inspection, it was noted that the river was in flood stage, the gauge board attached to the pier reading 19.75 feet. It is understood that normal tide gauge reading is approximately 8 to 9 feet, and minimum flood stage approximately 16 feet. With the tide gauge reading at 22 feet and 18 inches of pontoon deck freeboard, the bottom of the spuds will rise above the guides. Consequently, during flood stages of the Columbia and Willamette Rivers, the drydock cannot be pumped out to light draft. The safe draft at the time of inspection was approximately when the pontoon deck was two feet above water.

The pontoon deck has been recently painted by the Port of Portland and the wood platform replaced on the deck. Service piping, supports, and valves are in good condition. New cushion blocks have been installed on centerline keel blocking and bilge blocking.

Wingwalls are in good preservative condition. The wingwall decks, painted recently, indicate a slight rusting, and repainting will be necessary in the near future.

The status of the correction of deficiencies on the drydock which are a responsibility of the Navy, and which are listed under "special maintenance", is as follows:

- a. Replace gratings between center and end sections - now accomplished.
- b. Repair hand rails on inboard side of wingwall decks - now accomplished.
- c. Repair and replace missing hinged plates along top deck projecting timber fender - now accomplished.
- d. Remove, clean and replace eight machine hatches on the top deck of both sidewalls and fill space between cover and frame with mastic - now being accomplished.
- e. Inspect, clean and tighten the twelve inch gate valves between the buoyancy compartments and the ballast compartments to stop leakage, and remove all water from the buoyancy compartments - now accomplished.
- f. The installation of the protective signal system for the lubrication pumps is in the design stage. A complete plan is in process of being developed by the Design Section of the District Public Works Office. Upon completion, this plan will be forwarded to the lessee for use in installing this signal system.

ENCLOSURE (1)

PSY500005981

g. The intercommunication system performed satisfactorily except the talk back feature which has recently been placed in operation but is not quite as clear as it should be. However, the lessee is still working to improve this part of the system.

h. Four universal couplings in the center section of the dry dock are now replaced with rigid type flanged couplings. Additional replacements will be accomplished as required.

i. Pro-rata share of cost to dock and paint the outside underwater portion of the hull structure. This is to be accomplished prior to the termination of the lease which expires on 1 December 1954.

The electrical installation on this drydock was being maintained in very good condition. A submergence and dewatering operation was conducted and all equipment and controls performed satisfactorily. It is recommended that the electrical circuits be meggered out once a month and a record kept of the resulting readings. The readings should not be less than 1 megohm to ground. If sudden or continuous drops in the megger readings are noticed, the circuit should be sectionalized and the defective portion repaired or replaced.

The lessee, under the supervision of a representative of Cutler-Hammer, Inc., manufacturer of the valve operators, tested and adjusted all the limit switches on the valve operators.

The fire alarm system aboard the drydock performed satisfactorily.

The drydock was submerged to 24'6" over the keel blocks with all flooding valves open for 30 minutes. Safety decks were inspected for possible leaks. No leakage was observed except at No. 2 pump on the A or starboard side, indicating a loose packing ring which required tightening. All main pump motors were checked for vibration and proper lubrication while in operation. No appreciable vibration was noted. Water level indicators and depth gauges in the control house on B or port side were observed during submergence and dewatering. All gauges performed accurately within a small tolerance, but some lag was noted between gauge readings and actual gauge board readings.

As the drydock could not be pumped to light draft due to high water, no inspections could be made of the ballast compartments or the underside of the hull. However, all hatches in the machinery deck at all motors and valve shafts were opened. Motor shafts and universal couplings on flooding and discharge shafts were observed.

It was noted that several shafts on the flooding discharge valves on the 30 inch valves of the center section flexed considerably out of line, and the universal joint pins on two shafts were quite loose, due to wear. The condition of these flooding and discharge valve stems and universal joints has been previously reported.

With the exceptions noted herein, the drydock appears in very good condition.

W. S. LARSEN

D. M. CADDELL

Refer to:
DC-330:Lt
NL6
Serial 40082

January 13, 1950

File 8
Insp. Rept
YFD 69

District Public Works Office
Thirteenth Naval District
1611 West Wheeler Street
Seattle 99, Washington

Gentlemen:

Subject: Condition Survey YFD 69 -- Swan Island
Portland Oregon

Reference is made to yours of January 4 and survey report which you enclosed therewith.

In respect to your third paragraph, would say that before placing the false deck on the pontoon in preparation for operation, cleaning up of rust spots, etc., in the corners and angles was carried on. It is quite a chore to take this false work off and it is necessary that it be there when the dock is in operation. It is also the intention that the operating crew will carry on the minor maintenance, catching up with rust spots, etc. currently.

The statement in your fourth paragraph in respect to the Port's having taken over the incidental facilities from War Assets on December 9 is correct.

Careening Regarding semi-annual maintenance inspections: while we realize that this is an administrative decision for you to make, we do suggest that a very thorough examination was made in December, and another inspection in February, 1950, would seem to be dating them rather close together, especially as there will be much labor involved in such operations as cleaning the dry dock, etc. We ask that you give consideration to six month's spacing from the date of the survey recently completed, but will of course abide by your decision.

As requested, we are returning herewith four copies of the inspection report signed by our Mr. James Healy, Superintendent of Dry Docks.

We have not yet received lease agreement for execution and are holding the insurance policies for transmittal with the signed agreement when same has been formally executed on behalf of The Port of Portland.

Yours truly,

THE PORT OF PORTLAND

jpl gm
enclose 4

By _____
Manager



PSY500005983

8 ✓

*Rec'd to
PORT*

DISTRICT PUBLIC WORKS OFFICE
THIRTEENTH NAVAL DISTRICT
SEATTLE, WASHINGTON

IN REPLY
REFER TO:

DC-330:Lz
NOy-19744
Serial 40070
31 May 1950

Port of Portland
916 Spalding Building
Portland, Oregon

Gentlemen:

Reference is made to the District Public Works letter to the Port of Portland of 18 January 1950. In accordance with the above letter an annual inspection of floating dry dock YFD-69 will be accomplished during the period of 7 to 9 June 1950.

In addition to the general maintenance items, the special maintenance items listed under exhibit "A" of contract NOy-19744 will also be inspected. A further study of the desirability of continuing the use of universal joints on the 30-inch gate valve, rising stems, will be undertaken at this time.

*dry dock
Inspection June 7-9
- universal joints*

X

The inspection will be conducted by Mr. W. S. Larsen and Mr. D. M. Caddell of the District Office.

Very truly yours,



A. C. EBERHARD
Captain, CEC, USN
Officer in Charge
Contract NOy-19744
Thirteenth Naval District

PSY500005984

IN REPLY
REFER TO:

DC-330:lt
N16
Serial 40082

DISTRICT PUBLIC WORKS OFFICE
THIRTEENTH NAVAL DISTRICT
1611 WEST WHEELER STREET
SEATTLE 99, WASHINGTON

1950
4 January 1949

Mr. E. F. Doyle, President
Port of Portland
916 Spalding Building
Portland 4, Oregon

Dear Sir:

✓ Enclosed are six copies of the inspection report relative to the recent inspection of the 14,000 ton, steel floating drydock, YFD-69, located at Swan Island, Portland, Oregon.

✓ The overall condition of the drydock is very good. Only minor deficiencies, which would normally be corrected by routine maintenance, were noted.

?
adv The enclosed report substantiates the findings contained in the F. R. Harris report, as to the conditions of the drydock. However, it is not considered necessary to correct the minor deficiencies noted, prior to placing the drydock in operation, as recommended by F. R. Harris. These repairs could be accomplished more economically as maintenance items after the drydock is in service.

✓ Miscellaneous drydock gear stowed ashore which includes special drydocking equipment, towing equipment, stairways, railings, fenders, etc., was found to be painted and apparently in satisfactory condition. These items, including all spare parts, were checked jointly with the Port of Portland representatives, the quantities agreed upon, and all items receipted therefor. All spare parts were in satisfactory condition.

?
adv During the inspection the representatives of the Thirteenth Naval District were advised that the General Services Administration (WAA) controlled all shore connecting cables; steam, water and air connections; mooring guides; the gangway; and shore transformers. It is now understood that these facilities were sold to the Port of Portland, effective 9 December 1949.

PSY500005985

DC-330:Lt
NL6
Serial 40082

when
Semi-annual maintenance inspections of the floating drydock, YFD-69, will continue to be accomplished by representatives of the Thirteenth Naval District. The next inspection date is being scheduled for February 1950.

*return 4
ans*
It is requested that the Port of Portland's representative sign the enclosed inspection report thereby confirming the condition of the floating drydock, YFD-69, as described therein, and return four signed copies to this office.

Very truly yours,



A. C. EBERHARD
Captain, CEC, USN
District Public Works Officer
Thirteenth Naval District

Encl

- (1) Six copies of
inspection report,
YFD-69.

Copy to:
BuDocks

IN REPLY
REFER TO:

DC-330:Lz
N16
Serial 40011

8

DISTRICT PUBLIC WORKS OFFICE
THIRTEENTH NAVAL DISTRICT
1611 WEST WHEELER STREET
SEATTLE 99, WASHINGTON

18 Jan 1950

*Rec'd to
JH & aut
JAN 4 1/13*

Mr. J. P. Doyle, Manager
The Port of Portland
916 Spalding Building
Portland 4, Oregon

Dear Sir:

Reference is made to the Port of Portland letter, File 8, Inspection Report, YFD-69, to the District Public Works Office of 13 January 1950.

The steel surfaces under the wood decking referred to in the above letter are to be maintained in accordance with Navy requirements as governed by good commercial practice. The method used in accomplishing this result is optional with the lessee.

After further consideration it has been decided to schedule the next semi-annual inspection of the YFD-69 for June 1950. A definite date will be arranged by future correspondence.

Yours very truly,



A. C. EBERHARD
Captain (CEC), USN
District Public Works Officer,
Thirteenth Naval District

PSY500005987

8

DISTRICT PUBLIC WORKS OFFICE
THIRTEENTH NAVAL DISTRICT
SEATTLE, WASHINGTON

IN REPLY
REFER TO:

DC-330:Lz
NOy-19744
Serial 40047

5 Apr 1950

Port of Portland
Spalding Building
Portland, Oregon

Gentlemen:

By your letter of 3 April 1950, permission was requested to remove all universal couplings in connection with the rising stem valves in the floating dry dock YFD-69, and replace them with rigid type flange couplings.

Before further administrative action is taken in this matter, it is considered advisable for representatives of the Officer-in-Charge, Contract NOy-19744 to inspect the performance of the old and new couplings.

A decision relative to the requested alterations will be reached by the Officer-in-Charge after the above inspection, which is scheduled for the period 12 - 20 April 1950.

Yours very truly,



A. C. EBERHARD
Captain (CEC), USN
Officer-in-Charge
Contract NOy-19744
Thirteenth Naval District

*re change of
couplings
valve stems
N.S.D. 69*

PSY500005988

10

REPORT
ON A
NEW FINGER PIER AND DRY DOCK BERTHS
FOR
THE PORT OF PORTLAND
AT
SWAN ISLAND, PORTLAND, OREGON

JULY 31, 1950

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS
27 WILLIAM STREET
NEW YORK 5, N. Y.

PSY500005989

FREDERIC R. HARRIS, INC.

CONSULTING ENGINEERS

27 WILLIAM STREET
NEW YORK 5, N. Y.

TELEPHONE HANOVER 2-0680
CABLE ADDRESS-HARKOB

July 31, 1950

Y-450
(638)

The Port of Portland
916 Spalding Building
Portland 4, Oregon.

Attention: Mr. J. P. Doyle, Manager.

Gentlemen:-

Enclosed herewith is our report on the proposed new finger pier and dry dock berth to be constructed for The Port of Portland at Swan Island, Portland, Oregon.

In the scheme recommended, namely Scheme #7, the finger pier will have a total length of 1080 feet and will be parallel to the existing craneways. The pier will be of reinforced concrete design consisting of two sections, 580 and 500 feet long, with a width of 50 and 32 feet respectively. This structure will be supported by 24-inch and 18-inch diameter pipe piles with a bent spacing of 20 feet.

The shore bulkhead will consist of a series of cellular cofferdams designed for a dredge elevation of -50.

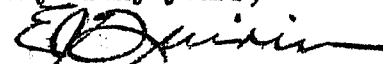
Onshore, two buildings will be designed to house power, shop and sanitary facilities, and contractor's activities.

It is recommended that the timber dock, now located at St. Johns, have its spudding connections changed in order to eliminate the necessity of constructing an additional mooring pier, extending the full dry dock length.

The construction cost of the proposed new finger pier and services is estimated to be \$1,692,164.

Upon your approval, we shall proceed at once to prepare the final plans and specifications for bidding purposes. Under separate cover a list of the steel requirements has been forwarded in order to expedite procurement in view of the impending allocation control by the U. S. Government. The steel requirements are those for Scheme #7.

Very truly yours,


E. J. Quirin, President

PSY500005990

REPORT
ON A
NEW FINGER PIER AND DRY DOCK BERTHS
FOR
THE PORT OF PORTLAND
AT
SWAN ISLAND, PORTLAND, OREGON

JULY 31, 1950

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS

PSY500005991

REPORT
ON A
NEW FINGER PIER AND DRY DOCK BERTHS
FOR
THE PORT OF PORTLAND
AT
SWAN ISLAND, PORTLAND, OREGON

In order to more economically correlate dry docking facilities now operated by The Port of Portland on the Willamette River at both Swan Island and St. Johns, it is proposed that new facilities be constructed at Swan Island, capable of handling in one location, work now being accomplished at the two separate sites. It is anticipated that from such a unification, repetition of personnel and equipment will be eliminated and that the new improved facilities will serve to attract more ship repairing trade into the Portland area.

EXISTING FACILITIES

The Port of Portland has leased from the U. S. Navy a steel floating dry dock which is currently operating at Swan Island. In addition, at St. Johns, the Port of Portland owns and operates two timber floating dry docks. One of these timber docks will be shipped to Swan Island where, with the steel dock, it will provide complete docking facilities at one central location.

During World War II a cellular cofferdam finger pier was constructed at Swan Island and this pier now provides berthing space, water, compressed air, and electrical service to the steel dock.

The Port of Portland has five 50-ton whirler cranes which serve the finger pier, outfitting pier, and craneway #1 and, in addition, has a number of buildings in the area that provide office space and shop facilities for both contractors and The Port of Portland.

SOIL BORINGS

Before the type of structures required by the design conditions could be determined, it was necessary to obtain detailed information concerning the subsoil stratification. As no previous boring records were available, 7 borings were requested to be made in the vicinity of the proposed new pier. In the field, it was necessary to relocate several of these borings in order not to interfere with navigation and existing dry dock operations. On Drawing No. 450-12 is shown the location of the borings. It is to be observed that

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS

PSY500005992

they are distributed over a relatively large area.

As seen on Drawing No. 450-12 the soil is predominantly grey medium sand with layers of grey organic silts of low plasticity. The sand, in general, increases in density with depth, as shown by the blow counts, and hence, if sufficient penetration is obtained, high stresses could easily be supported without any harmful differential settlement. The silty-clay-like soils, however, do not possess the high bearing capacity of the sands. These soils are organic in character, as evidenced by the presence of roots and wood fragments in the samples. These clay soils possess a high degree of natural structure, but under the influence of remolding become quite soft and compressible. Each boring terminated in a compact gravel stratum into which penetration was extremely difficult. No evidence of cemented gravel was ever found.

Viewing the stratification as a whole it is seen that the soil profile is somewhat erratic and exhibits the typical characteristics of a valley fill deposit. There are no definite strata that have to be by-passed and hence, if unit loads are kept at a reasonable value, almost any type of economical foundation could be utilized. Attempting to reach the compact gravel stratum for positive support appears unnecessary and would be costly.

LAYOUT

Several layouts were made and compared in order to determine a suitable and economical plan that would provide correlated service to the floating docks. These alternate layouts are shown on Drawing No. 450-13 to Drawing No. 450-19, and are described below.

Scheme 1 - Drawing No. 450-13

In Scheme 1, the new finger pier is located perpendicular to the shore line and 20 feet south of craneway #1. The timber dock is serviced from the south side of the existing finger pier and the steel dock obtains service from the north side of the new finger pier. Mooring berths for three ships, awaiting dry dock or repair work while afloat, are provided for in this scheme. Three existing building ways and craneways would have to be demolished. The total bulkhead length required is 435 feet.

Disadvantages of this scheme are:

- (a) Requires provision and maintenance of two cranes, two runways and duplication of services for the dry docks.
- (b) Does not provide for berthing of ships awaiting service immediately prior to drydocking in the timber dock.
- (c) Does not provide access pier for guiding ships into the timber dry dock.

The advantages of this scheme are:

- (a) Economical in first cost, i.e., its estimate of cost is less than Schemes 2, 4, 6 and 7.

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS

PSY500005993

(b) Provides easy access and approach to dry docks and to outfitting berths located in Swan Island Basin.

Scheme 2 - Drawing No. 450-14

Scheme 2 is the same as Scheme 1 except that the new pier has been located 70 feet south of craneway #1 in order to provide more clearance between the two dry docks and thus reduce the fire hazard and permit a greater "list" in the dock operations. Demolition would extend to craneway #4. The total bulkhead length required is 485 feet. This scheme has the same general disadvantages as Scheme 1, but is estimated to cost more than all other schemes.

Scheme 3 - Drawing No. 450-15

In Scheme 3, the new pier has been located 120 feet north of craneway #1. The timber dry dock would obtain service from both the existing and new pier. The steel dock is located on the south side of the new pier. Berthing space is provided for 2 ships awaiting dry dock, or for being repaired while afloat. Demolition of three crane and building ways is required. The total bulkhead length required is 425 feet.

Disadvantages of this scheme are:

(a) Restricts clearance and approach to the timber dry dock and outfitting berths located in the Swan Island Basin.

(b) Only two mooring berths are provided.

Advantages of the scheme are:

(a) Its estimated cost of construction is less than any other scheme except Scheme 5.

Scheme 4 - Drawing No. 450-16

This scheme substitutes a shore bulkhead for the inboard half of the new finger pier of Scheme 2. The north side of this bulkhead provides service for the steel dock and the existing finger pier serves the timber dock. Additional moorage for two ships is available and demolition of only one crane and building way is required. The total bulkhead length is 1,000 feet.

Disadvantages of this scheme are:

(a) Restricts future development to the south.

(b) Requires provision and maintenance of two cranes, two runways and duplication of service to the dry docks.

(c) Does not provide for berthing of ships awaiting service immediately prior to drydocking in the timber dry dock.

(d) Does not provide access pier for guiding ships into the timber dry dock.

(e) Its estimated construction cost is more than other schemes except Scheme 2.

(f) The formation of an enclosed basin for the dry docks is not desirable.

Scheme 5 - Drawing No. 450-17

In this scheme, the steel dock remains at its existing berth and the timber dock provides service at the outfitting pier in Swan Island Basin. No demolition is required and 650 feet of outfitting berthage would be dredged to elevation -50, after rebuilding the existing bulkhead.

Disadvantages of this scheme are:

- (a) Does not provide access piers for guiding ships into the dry dock.
- (b) No additional mooring berths are provided.
- (c) Location of a dry dock in Swan Island Basin would be an obstruction to navigation.

The advantages of this scheme are:

- (a) The estimated cost of construction is lower than any other scheme.

Scheme 6 - Drawing No. 450-18

In Scheme 6, the new finger pier is located approximately 20 feet south of craneway #1 and at a slight angle of about 8 degrees to the line of existing building ways. Both dry docks will be serviced by the new pier, the timber dry dock being located on the north side and the steel dry dock on the south side. Mooring berths are provided along the new pier, beyond the dry docks. Three existing building ways and craneways would have to be demolished. The total length of bulkhead required is 475 feet. Three berths are provided for in this scheme.

Disadvantages of this scheme are:

- (a) It is not the most economical scheme, being estimated to cost more than Schemes 1, 3 and 5.
- (b) Cranes must travel on a curve joining existing line with skewed pier.
- (c) In a preliminary discussion with The Port of Portland officials, it appears that the skew of the pier is not necessary, that there is ample distance between outer end of pier and shore line for navigation and maneuverability.

Advantages of this scheme are:

- (a) It provides the most efficient and self-contained unit of all

schemes considered except Scheme 7 which is essentially the same.

(b) It provides a greater width between pier and shore line for access to timber dock and to outfitting berths in Swan Island Basin.

Scheme 7 - Drawing No. 450-19

The scheme is essentially the same as Scheme 6 except that the pier is maintained on a line parallel to existing shipways. It has the same disadvantages and advantages as Scheme 6 except in the matter of the width for access to the timber dry dock and to outfitting berths and the area for maneuverability incident thereto, but eliminates the curve in crane track.

In comparing the relative advantages of each scheme, it is apparent that Schemes 6 and 7 are most satisfactory from an operational point of view and are consistent with economic practices. While placing the pier at an angle in Scheme 6 and providing greater channel clearances to the outfitting berths in Swan Island Basin, it has been pointed out that sufficient channel clearances will result with the pier parallel to existing building ways as in Scheme 7. With the pier parallel the optimum length of shore front for future development is provided.

Scheme 7 is, therefore, the scheme recommended for final design.

On Drawing No. 450-19 it is to be observed that the new pier will be built beyond the existing harbor line limits. It is assumed that the Port of Portland will negotiate with the proper authorities to have the harbor line relocated.

PIER WIDTHS AND TRACKAGE

The proposed new pier will have a total length of 1080 feet and will be divided into two sections. The first section, 580 feet long by 50 feet wide will be connected directly to the shore bulkhead. The two dry docks will be moored along this first section. The outer section will be only 500 feet long, 32 feet wide, and, like the shore section, provides moorage, service, and repair facilities. These pier widths were determined from consideration of required clearance distances and existing crane boom lengths. Railroad service extends for the full pier length. However, elimination of crane services on the outer section, where its use is not essential, made possible material savings resulting from reductions in pier width and pile support.

DESIGN OF PIER SUPERSTRUCTURE

A. Main Portion

The main portion of the pier was designed to withstand the following loads:

(1) Crane Truck Load. The maximum truck load to be distributed over 3 wheels was taken as 227 kips, as given by the crane manufacturer.

(2) Uniform Live Load. A uniform live load of 1,000 pounds per square foot was considered over those portions of the slab not occupied by

the crane trucks, locomotive, or any other object that would produce a greater load. Because of the improbability of this loading covering an extensive area, it was reduced to 800 pounds per square foot for the design of the longitudinal beams and 750 pounds per square foot for the piles and capping.

(3) Locomotive Loading. The pier was designed for an M-30 type locomotive. Since the actual locomotive to be used has not been obtained, it was felt that this locomotive weighing in excess of 170 tons provided a conservative criterion. An impact percentage corresponding to that used for electric locomotives was added on for the design of the longitudinal girders. No impact was considered on the piles or capping.

(4) Trailer Truck Load. A trailer truck loading corresponding to the H-15 S-44 loading of the American Association of State Highway Officials was selected. However, it was found that greater stresses were obtained by considering the uniform live load over as large an area as possible and eliminating the truck load.

(5) Horizontal Load. Horizontal loads were those occasioned by wind acting on the dry docks and ships. A wind force of 20 pounds per square foot of exposed surfaces was used.

B. Outboard Portion of Pier

The outboard or 32' wide portion of the pier was designed to resist the following vertical loads:

(1) Uniform Live Load. A uniform live load of 500 pounds per square foot was considered to be acting on this portion of the slab. As was the case with the main portion of the pier, this was reduced 20 and 25 per cent respectively when considering the girders and piling.

(2) Locomotive Loading. The same locomotive loading as on the main portion of the pier was considered to be acting on this outboard portion.

(3) Truck Loading. As an alternate to the uniform live load, two H-15 S-44 trailer trucks, one on each side of the locomotive, were considered. Generally, this loading was found to be critical.

(4) Horizontal Loading. A 3,000 pound per running foot horizontal load acting in either direction over the entire length of pier was considered in the design.

CONSTRUCTION - PIER AND BULKHEAD

Consideration was given to several types of design for the construction of the Pier. First a series of steel sheet pile cofferdams similar to the existing finger pier were considered. Such a scheme costs much more than other designs described hereinafter. By forming a dead-ended water pocket it is not as desirable as an open pier through which water can flow freely.

A second scheme was developed using Steel H-piles. This scheme requires a large number of piles because the allowable load on any individual pile is rather low due to the large unsupported length of pile. Transverse

and longitudinal bracing of piles is also required. These factors increase the estimated cost to a point where it proves to be uneconomical.

Precast concrete piles as a third scheme were considered and also estimated to be uneconomical in first cost because of the heavy reinforcement needed for handling purposes. Driving conditions would be hard and subject these piles to possible damage. This scheme is also not recommended.

The fourth type of pile, namely 24-inch and 18-inch diameter steel pipe piles, was estimated to be the most economical in first cost and was the one selected for construction. Such piles can easily be driven to required penetration and are able to support relatively large unit loads. In addition, the radius of gyration of these piles is high, making it possible for them to withstand high unit stresses and lateral loads without any bracing. Batter piles will, however, be provided for lateral loads. The steel pipe selected has a thickness of $3/8$ inch and will be coated with a protective coating such as bituminous paint so that it should have an indefinite life. If the portion above low water does lose its protective coating, a new application can be made during an extremely low water stage. The interior of the piles are left unfilled.

For the decking, two schemes were developed, one using structural steel framing with concrete slab and the other using all reinforced concrete for the cap, girders and slabs. The structural steel was estimated to be more expensive and therefore led to the recommendation of using all concrete construction. Cross sections of the decking are shown on Drawing No. 450-21.

For the design of the bulkhead, various schemes were considered. The structure inshore of the dry docks must support the thrust of 80 feet of backfilled soil. Under such conditions, a cellular cofferdam design was estimated to be the most economical and provides the greatest degree of safety. Relieving platforms, sheet pile bulkheads, retaining walls, and other similar structures require considerable bracing and complicated details for the conditions under which they are designed and therefore are not recommended for use here.

As seen in Drawing No. 450-19 it is assumed that a dredged slope of 1 on 3 will prove stable and will prevent any sloughing of soil under the dry dock, thus eliminating any unnecessary future dredging maintenance. As the height of unsupported soil decreased along this slope, the bottoms of the cells are stepped upward, and finally where it can be worked out economically, near the top of dredged slope, a single line of sheet piling tied back has been substituted for the cellular construction.

In the proposed new pier layout it is necessary to dredge below existing elevations. Consequently, some of the existing cells will have to support a backfill height greater than any they have ever supported previously. In order to resist the increased earth thrusts, developed by the increased dredge depths, it is recommended that a soil and rip-rap berm be constructed at the toe of each cell. An alternative to constructing a berm is to drive the existing cells to greater penetration. However, this would prove extremely costly because of the large amount of sheet piles, splices and ripping of pavement required. In addition, there is the strong possibility that the cells would not be driven to greater depths because of the large

existing interlock and penetrational resistance. Soils have a tendency to "set" with time and therefore, would offer great resistance to driving. Also, the original sheet piles were not driven when the cells were completely filled with earth and, hence, large interlock stresses are now present which did not exist originally. Finally, in the ensuing years, since the cells were driven, rust has probably effectively bound the interlocks together. For these reasons it is obvious that attempting to redrive the existing cells is certain to prove difficult and could conceivably result in damage from over-driving. Constructing a berm offers the only practical, certain and economical solution.

Before the steel sheet pile cellular cofferdams are built, the bottom should be dredged out to approximately elevation -15 feet in order to reduce the length of driving of the individual sheet piles. This will mean that the dredged slope will encroach considerably on the present area back of the bulkhead line which will require backfilling and repaving. It is considered that this is necessary to ensure the construction of the steel cells without undue difficulty.

MISCELLANEOUS ADDITIONAL FACILITIES

On shore will be located two buildings which will contain electric power, compressed air, shop, and sanitary facilities. Location and size of these buildings are tentatively set forth and are subject to further checking by The Port of Portland. The compressors and electrical facilities will be combined into one building in order to save on operating and construction costs. One building will be devoted entirely to the Port's activities, while the other building will be for the various contractors' use.

The timber dock, now operating at St. Johns, is spudded on both sides. To provide a similar spudding arrangement for this dock at Swan Island would necessitate designing an additional pier, parallel to the proposed new pier, and of sufficient strength to resist the lateral thrusts developed by docking and wind forces. Since construction of such a pier would be of considerable expense, it is recommended that the dry dock be moored only to the new finger pier by modifying the spuds on one side to accommodate cleats on the new pier. This will eliminate the necessity of an additional mooring pier.

The steel dry dock now has mooring spuds on only one side. In the proposed layout it will be moored to the new pier exactly as now moored.

The cleats or chocks on the new pier for each dry dock will be movable to permit attachment at various levels, thus permitting uninterrupted service of the dry dock during stages of low and high water. For each dock, the clear distance between the pier and dock will be 5'-6".

To provide access to the north wingwall of the timber dry dock a narrow access pier is included. This access pier will be of rather light construction and will serve to carry electrical cables to the north wing wall of the timber dry dock.

To provide access to the south wing wall of the steel dock, a gang-plank will be provided from the shore directly to the top of wall when in submerged condition. A sketch of the arrangement is shown on Drawing No.

450-20. The existing gangplanks now being used to provide access to the pontoon deck from shore will be installed at the new pier. The timber dock will have a similar arrangement.

Floating camels located as shown in Drawing No. 450-20 will prevent damage to any of the wing walls from occurring when a ship is entering or leaving the dock. The permanent fender system could not be utilized in this location as it would interfere with maneuvering of the dry docks from their berths during dredging.

Fender piles and double bitts will be placed along the south side of the existing finger pier, along the new bulkhead, and on both sides of the outer portion of the new pier. The inner portion of the new pier will have double bitts strategically located to aid maneuvering of the dry dock during future dredging. No fender piles will be placed along the inner pier length as this would interfere with docking operations.

A dolphin, located as shown in Drawing No. 450-20 will protect the north wing wall of the timber dry dock from ship impact.

At the extreme outer end of the new pier, a double gypsy horizontal warping winch and "fair leads" will assist in pulling ships out of dry dock and on shore, at the head of each dock, a single gypsy horizontal winch will assist in pulling ships into dry dock. With such an arrangement of winches, tow boat power will be unnecessary and should result in substantial savings to ship owners.

FIRE PROTECTION SYSTEM

A fire protection system will be designed for the new pier and for the adjoining new buildings; for this reason a vertical pump will be installed to pump river water at a capacity of 1,000 gallons per minute. From this pump an 8-inch main will be provided under the new pier with 2½-inch fire outlets approximately 60 feet apart alongside the timber dry dock, equipped with necessary gate valves and 2½-inch hose adapters for hose connections. For the fire protection of ships berthed in the steel dry dock, two 5-inch outlets will be provided with necessary gate valves, 5-inch hose adapters and 5-inch diameter flexible hose for connection to the dry dock.

CITY WATER SERVICE SYSTEM

One new 8-inch city water main, connected to the existing city water line, will be provided under the new pier with 2½-inch service outlets, approximately 60 feet apart, alongside the timber dock, equipped with necessary gate valves and 2½-inch hose adapters for hose connections. For the city water servicing ships, berthed in the steel dry dock, two 4-inch outlets will be provided with necessary gate valves, 4-inch hose adapters and 4-inch diameter flexible hose for connection to the dry dock.

COMPRESSED AIR SERVICE SYSTEM

One new 6-inch compressed air main, connected from the compressed air receiver tank, located outside the new compressor building, will be provided, to run under the new pier, with 2-inch service manifold and three 1-inch

service outlets at each manifold. Each service manifold will be spaced approximately 60 feet apart alongside the timber dry dock, equipped with one 3/4-inch drain, one 2-inch lubricated plug cock valve, three 1-inch lubricated plug cocks and three 1-inch hose adapters for hose connections.

For the compressed air servicing ships, berthed in the steel dry dock, two 4-inch outlets will be provided with necessary lubricated plug cock valves, 4-inch hose adapters and 4-inch diameter flexible hose for connection to the dry dock.

STEAM SERVICE SYSTEM

One new 4-inch steam insulated main will be provided to run under the new pier with 1 1/2-inch service outlets, spaced approximately 60 feet apart alongside the timber dry dock, equipped with necessary gate valves and 1 1/2" hose adapters for hose connections.

For the steam servicing ships berthed in the steel dry dock, two 3-inch outlets will be provided, with necessary gate valves, 3-inch hose adapters and 3-inch diameter flexible hose for connection to the dry dock.

~~It is our understanding that The Port of Portland will provide a~~ portable steam generating plant, to generate steam of approximately 125 lbs. pressure per square inch, for the purpose of serving necessary steam to ships berthed for repairs. *will be provided*

SEWER SYSTEM

Sanitary sewer facilities will be provided. All sewage will empty into the river. However, provisions will be made for connection to a future main sewer line, which we understand will be constructed in the center of Swan Island.

ELECTRICAL FACILITIES

The existing electric substation located at the corner of the shore bulkhead and finger pier will be abandoned and all electrical equipment will be moved to the new Port Building to be constructed near the new pier.

Considering the equipment available (and assuming that the 6-667 KVA transformers are of the outdoor type), the substation will consist of both wire fence enclosed outdoor section and an indoor section. *delivered between ()*

The outdoor section will contain an 11,000 volt cable bus supported on a steel framework structure. This 11,000 volt bus will be fed at each end through outdoor disconnect switches from the two 11,000 volt underground feeders now available for supply to the substation. The 11,000 volt bus will be sectionalized by means of outdoor disconnect switches and each of the large three phase transformer banks will be energized from these individual sections. In this way all station load will be carried on either one of the two supply feeders, or split between them. This flexibility of transferring load on the supply feeders will be necessary as the air compressor and shop loads are supplied from this substation. Further, assuming that the capacity

of the two 11,000 volt supply feeders may be restricted in capacity available at the substation due to other connecting loads, it would be advantageous to split loads to meet varying operating conditions.

delete Each of the large three-phase transformer banks will be energized from one of the 11,000 volt bus sections through an outdoor disconnect switch and outdoor oil circuit breaker. The two 11,000 volt outdoor type oil circuit breakers now available will be used on the two banks of three 667 KVA transformers. As the air compressor load will be carried by this substation, it is assumed that the oil circuit breaker and 11,000/2300 volt transformers presently used to supply this load will be suitable for use at the new site.

It is questionable if the 200 KVA 11,000/120-240 volt transformer will have sufficient capacity to handle the additional shop and general area lighting load. The 100 KVA 11,000/120-240 volt transformer now used at Substation DD might be used for the additional capacity required. Each single phase transformer will be grouped on one of the 11,000 volt bus sections along with one of the large three phase banks.

The indoor section of the substation will house the low voltage switchgear, motor generator sets and air compressor units with their associated 2300 volt switchgear and starting equipment. The existing 440 volt metal enclosed switchgear now used for supplying the steel dry dock is of modern type and will be used in the new layout. Similarly, a new metal enclosed switchgear unit of the same type will have to be secured, and provided with the necessary air circuit breakers as required for 440 volt feeders to serve the operating room for the timber dry dock, crane service, one wharf ship service, 50 K. W. motor generator sets, and shop feeders.

If adequate, the existing 120-240 volt switchboards now used in conjunction with the 200 KVA and 100 KVA 11,000/120-240 volt transformers will be used to meet the 120-240 volt feeder requirements.

For more efficient operation of the timber dry dock the present open type switchboard and manually operated compensators for supply and control will be enclosed in some type of metal container, such as the "Control Centre" as manufactured by Westinghouse. Essentially, this unit will consist of ten across-the-line combination magnetic starter compartments (pushbutton control on door of each starter or remote pushbutton control from a control panel) for starting and stopping the ten 100 H. P. pump motors, and air circuit breaker compartments for the horizontal winches. A main breaker or disconnect switch will be incorporated into the unit.

Where cable is installed underground, fibre or transite ducts encased in concrete envelope, with manholes as required, will be used. Where cable is installed under concrete decking of the wharf, they will run open and suitably supported on the structure. All cable installed in conduit or open under the wharf for operation at 440 volts or under will be rubber insulated and Neoprene jacketed. The insulation will be of the low-water absorbing type equal to "Anhydrex" as manufactured by the Simplex Wire and Cable Company. All cable joints will be watertight, insulated, and covered with materials equal to that used for the cable insulation and jacket.

Cost
Scheme 7

For power factor correction, a study of the final layout will be made, taking into account all connected load, not only those in the local area under consideration, but the entire port area. Possibly switched static capacitors, synchronous condensers, or leading power factor synchronous motors will be the proper solution.

Portions of the utility tunnel will be demolished during dredging and removal of Crane and Building Way #1 to 3. Electric power to the new pier and service buildings will be supplied via a new service conduit located approximately as shown in Drawing No. 450-20. This conduit will be placed close to the ground surface in order to preclude any possibility of flooding.

add Portable shore lighting units will operate along the bulkhead line. The outer portion of the new pier will obtain illumination solely from three floodlights. The inner pier half will have recessed lighting built into the curb wall in order not to interfere with crane operations.

add Extending for the full length of new pier will be a telephone conduit. In addition, an electric line supplying power to any future navigation light required will be located on the pier.

add Electric power to the gantry cranes will be provided by means of a trolley system and copper cable instead of the present system of steel angles and shoe. This should provide a more efficient power system and reduce any danger of fire from sparks caused by rust scales.

COST

A cost estimate of the proposed new facilities was made, based on our previous experience with constructed structures of similar type. In addition, current prices quoted in the Portland area were utilized and the opinions of several independent contractors were obtained. Our estimate of the total cost of construction is \$1,692,164. based on the unit prices shown in Table No. 1.

RECOMMENDATION

It is recommended that Scheme 7 be adopted and that a new finger pier be constructed at Swan Island to provide mooring and service for two floating dry docks and two ships awaiting dry dock. This pier will be constructed parallel to the existing craneways. The total length of the new pier will be 1080 feet, and will be divided into two sections of 580 and 500 feet respectively. The 580-foot section will be connected directly to the shore bulkhead, have a width of 50 feet, and be supported by five 2-foot diameter pipe piles located in 20-foot spaced pile bents. The outshore 500 foot portion will be 32 feet wide and have two 18-inch pipe piles to a bent.

The shore bulkhead structure will consist of a series of steel sheet pile cellular cofferdams driven to adequate penetration. Existing cells will have a berm constructed at their toe for increased stability.

On shore will be located a building structure containing three air compressors, an electric substation, and machine, carpenter, welding, pipe and blacksmith shops. The transformers will be placed in a wire fence en-

FREDERIC R. HARRIS, INC.
CONSULTING ENGINEERS

PSY500006003

closed area outside of the electric substation. Another building on shore will be for the use of the contractor.

Railroad track, compressed air, fresh water, electric power and fire protection will extend for the full length of the new pier. Whirley cranes will provide service on only the shoreward portion. In addition, sanitary, lighting, mooring, and other miscellaneous facilities required in conjunction with operation of the proposed new pier will be located where required, all as generally described herein.

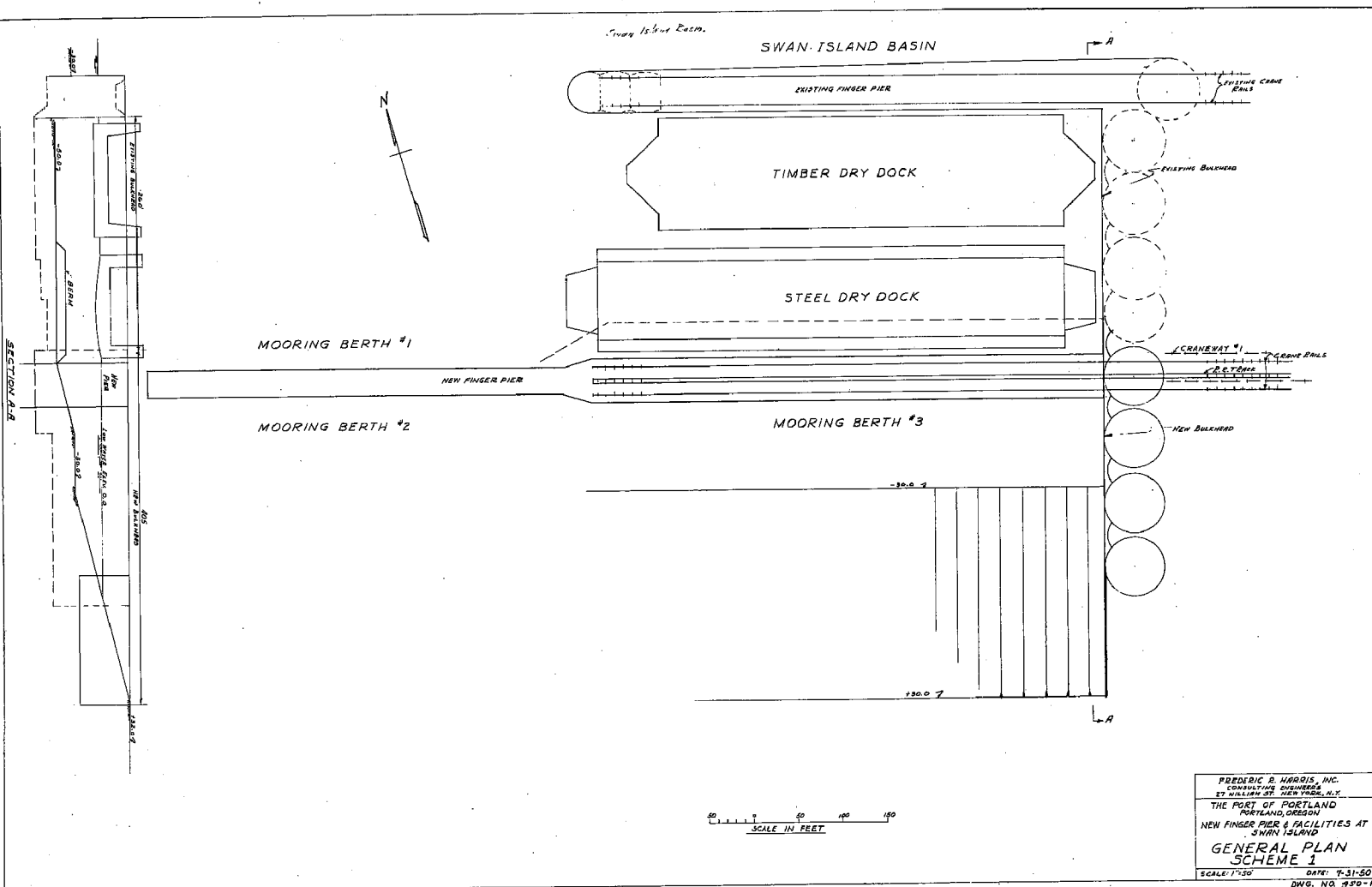
TABLE 1
ESTIMATE OF COST

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL COST (ROUND FIGURES)</u>
Pipe Piles , 24" Diam., 3/8" thick	23,220	ft.	9.00	\$ 209,000
Pipe Pile, 18" Diam., 3/8" thick	4,750	ft.	7.25	34,500
Batter Piles, 14"H 89#, 50' Pier	8,200	ft.	8.50	69,600
Batter Pile, 14"H 89#, 32' Pier	4,280	ft.	8.25	35,400
Reinforced Concrete Pier	2,494	yd ³	60.00	150,000
Cofferdam Cells - MP101	1,666	tons	240.00	400,000
*Sheet Pile Bulkhead, MZ32	84	tons	150.00	12,600
Tie Rods - 2 1/2"	12	tons	240.00	2,880
*Anchor Piles	1,990	ft.	4.00	7,960
Concrete Anchor Pile Cap	40	yd ³	60.00	2,400
Access Pier - Timber Dock		L.S.		26,000
Demolition		L.S.		81,924
Dredging		L.S.		100,000
Backfill - Hydraulic	72,000	yd ³	0.25	18,000
Pavement	7,000	yd ²	2.00	14,000
Railroad Track	2,200	ft.	15.00	33,000
*Crane Rail Track	1,700	ft.	10.00	17,000
Fender Pile System	3,740	ft.	12.00	45,000
Double Bitts	48	L.S.	50.00	2,400
Capstan - Double Horizontal	1	L.S.	4500.00	4,500
Capstan - Single Horizontal	2	L.S.	3000.00	6,000
River Pump	1	L.S.	6000.00	6,000
Buildings				
The Port of Portland	14,800	ft ²		
Contractors	13,100	ft ²		
	27,900	ft ²	10.00	279,000
Misc. Piping, Lighting, etc.		L.S.		75,000
Engineering				60,000
			TOTAL	\$1,692,164

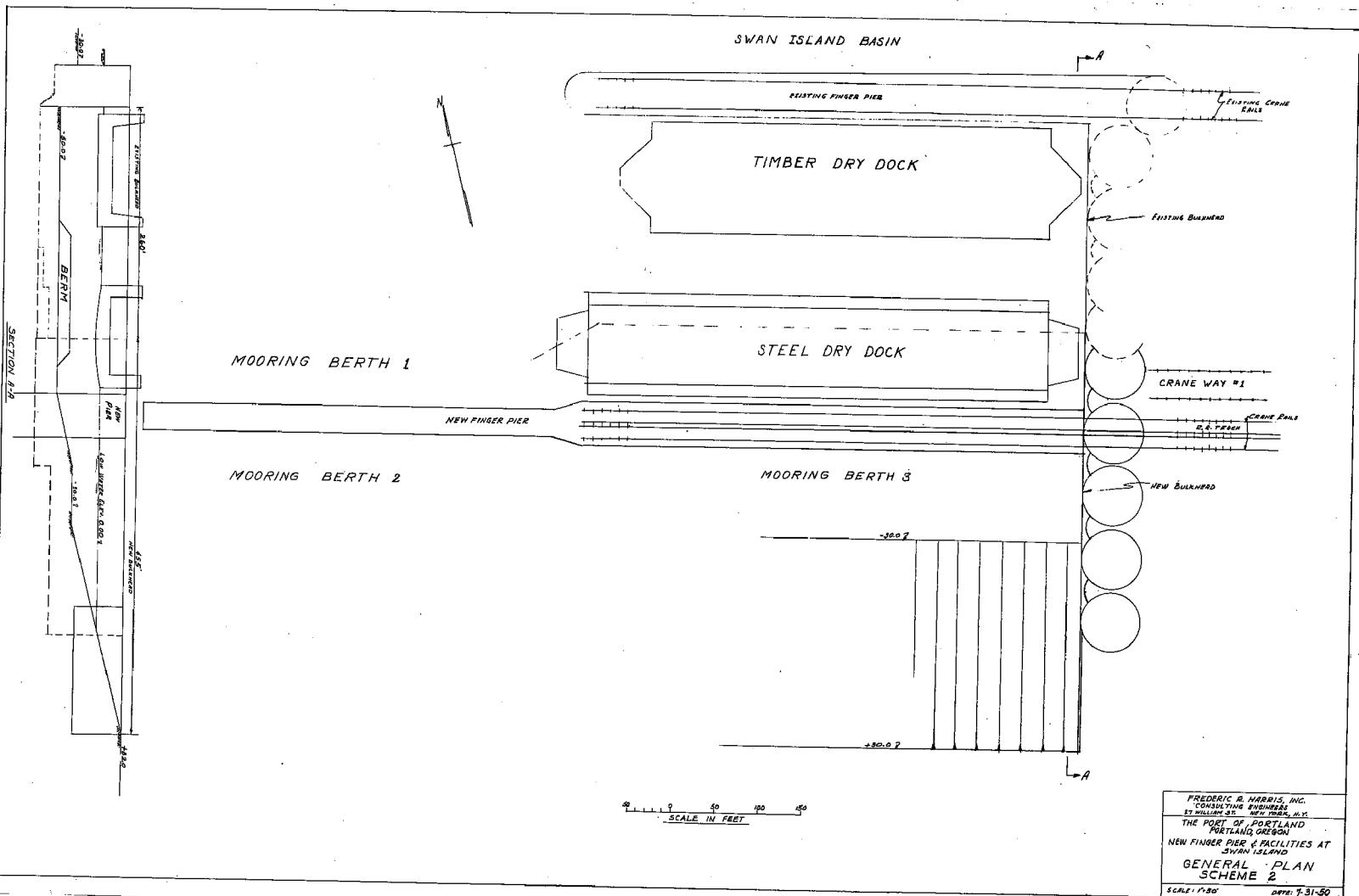
* Salvaged during demolition and reused.

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CONSULTING ENGINEERS

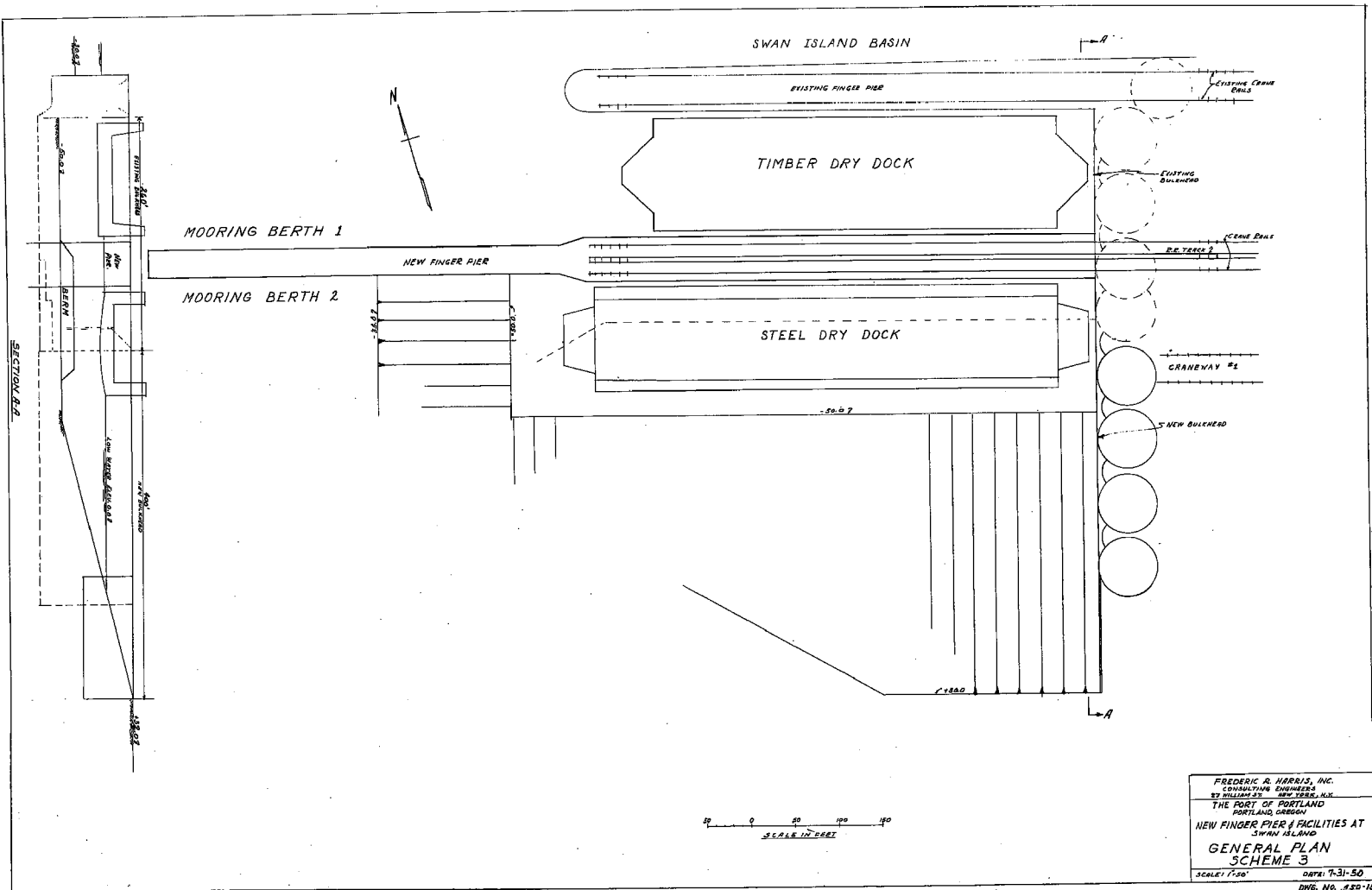
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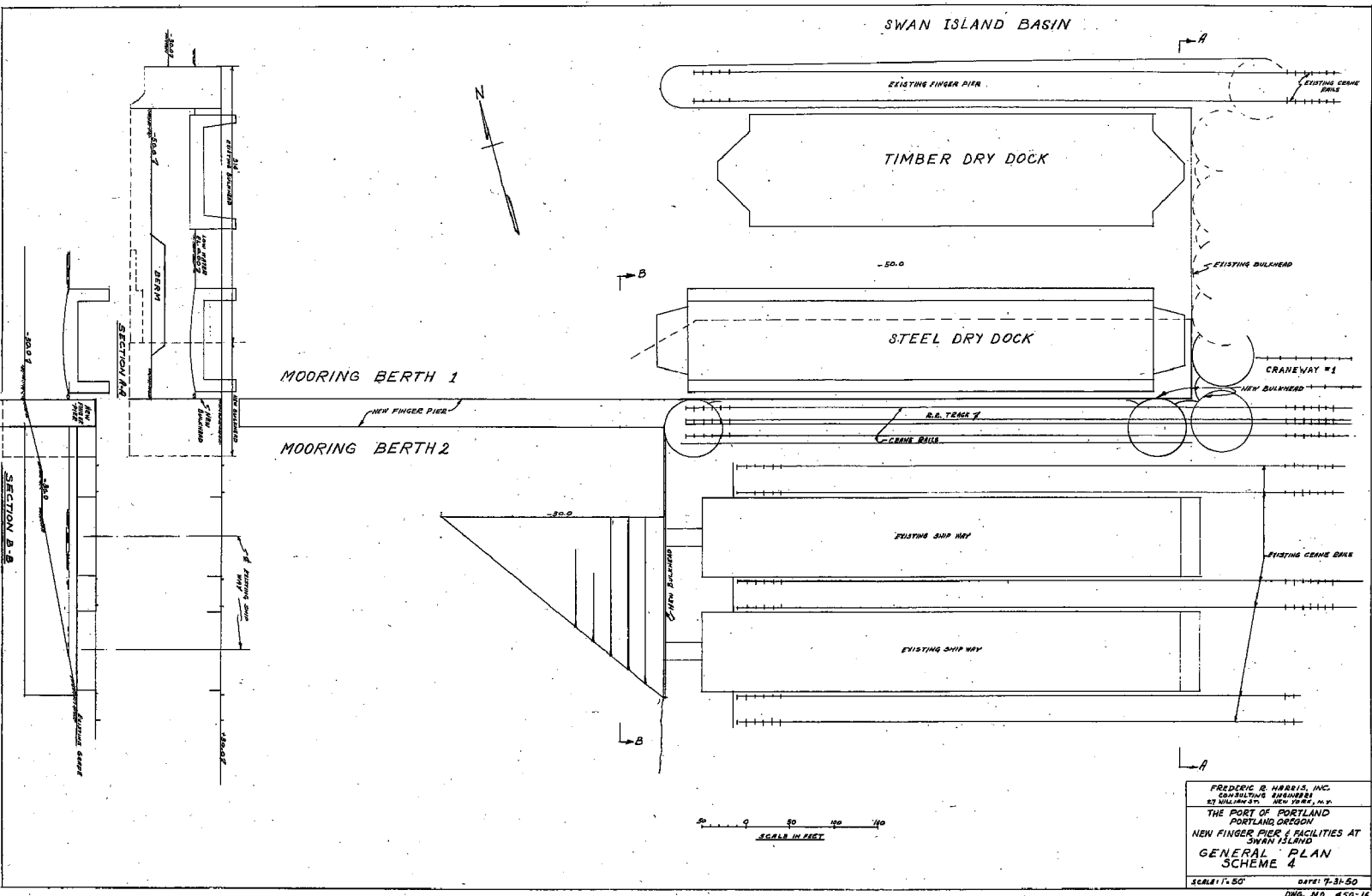
FREDERIC B. HARRIS, INC.
 CONSULTING ENGINEERS
 27 WILLIAM ST. NEW YORK, N.Y.
 THE PORT OF PORTLAND
 PORTLAND, OREGON
 NEW FINGER PIER & FACILITIES AT
 SWAN ISLAND
GENERAL PLAN
SCHEME 1
 SCALE: 1"=50' DATE: 7-31-50
 DWG. NO. 750-75

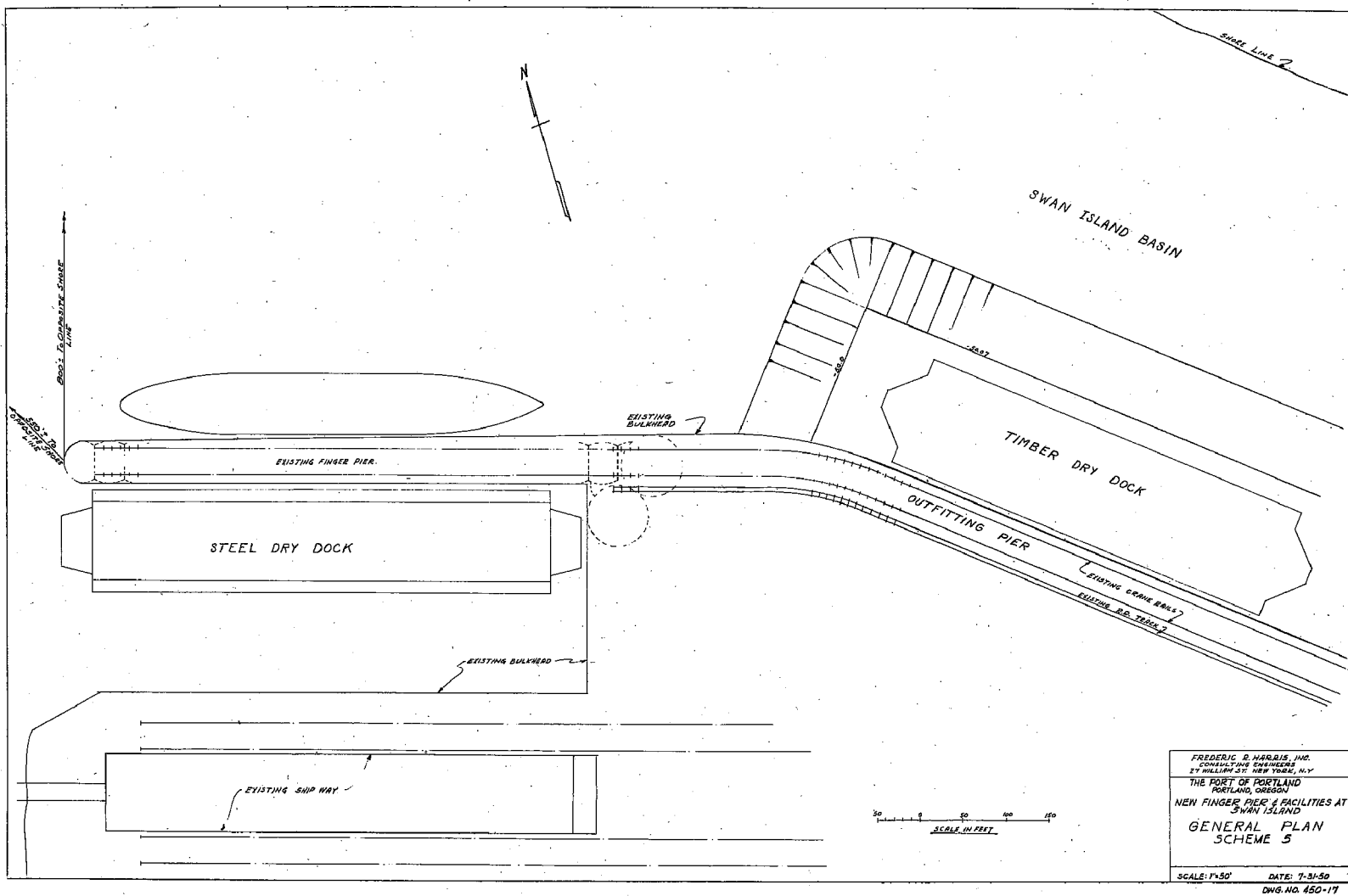


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CONSULTING ENGINEERS
27 WILLIAM ST.
NEW YORK, N.Y.
THE PORT OF PORTLAND
PORTLAND, OREGON
NEW FINGER PIER & FACILITIES AT
SWAN ISLAND
GENERAL PLAN
SCHEME 2
SCALE: 1"=50' DATE: 7-31-50

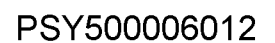


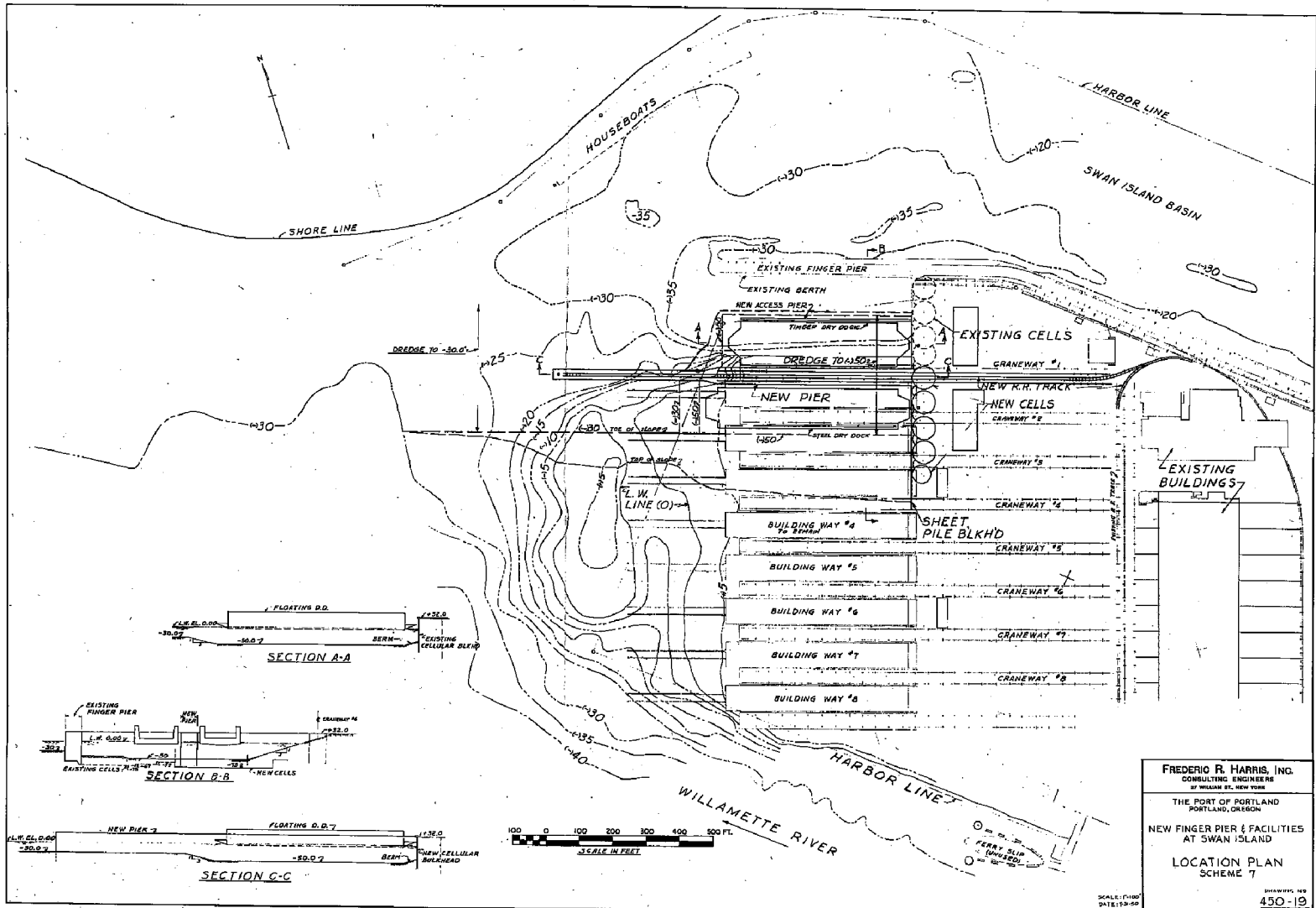
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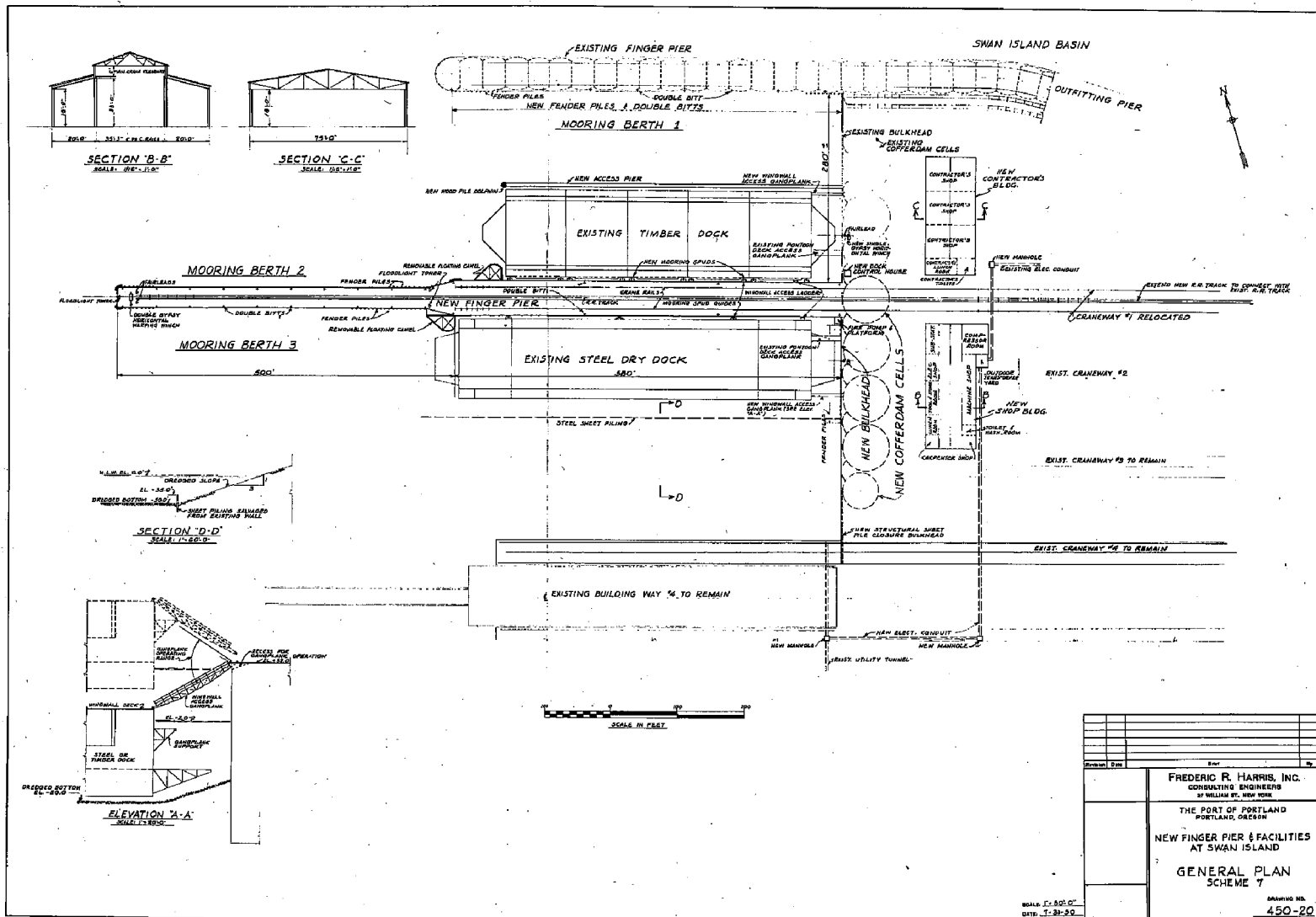


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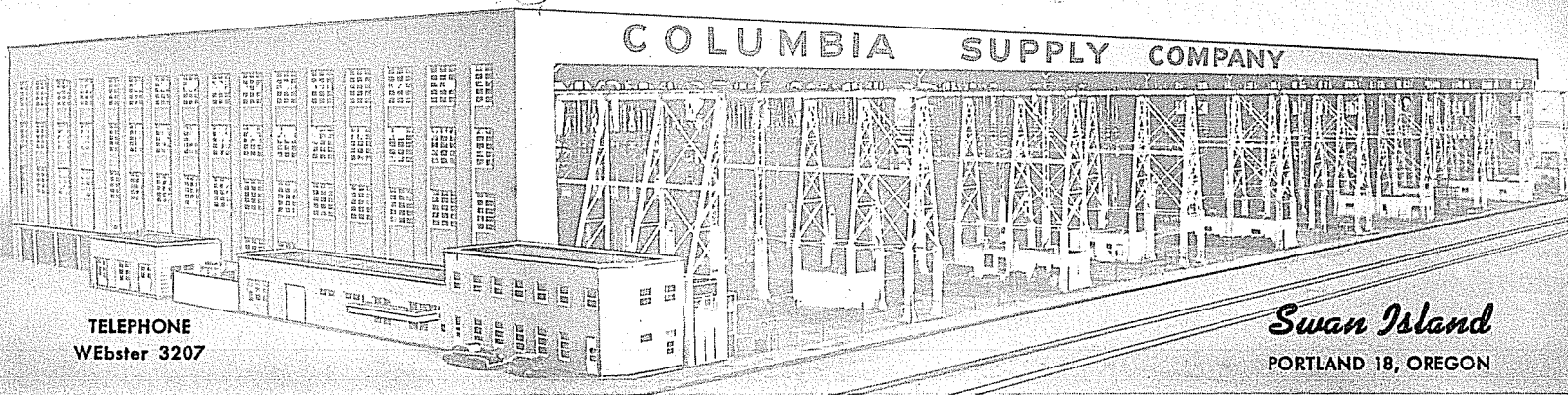




FREDERICK R. HARRIS, INC.
CONSULTING ENGINEERS
27 WILLIAM ST., NEW YORK
THE PORT OF PORTLAND
PORTLAND, OREGON
NEW FINGER PIER & FACILITIES
AT SWAN ISLAND
LOCATION PLAN
SCHEME 7
DRAWN BY: W.S.
450-19



COLUMBIA SUPPLY COMPANY



April 13, 1954

Port of Portland
Swan Island
Portland 18, Oregon

Attention: Mr. Doyle

Gentlemen:

We herewith request permission to sublet to Lawrence Warehouse Company all or any part of Bays 2 to 11, of Building #4.

Such sublease shall convey to Lawrence Warehouse Company the rights and be limited by the restrictions incorporated under the terms of the lease dated August 15, 1952, and to proposed amendment Number 1.

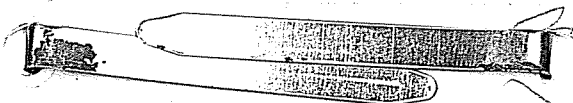
Very truly yours,

COLUMBIA SUPPLY COMPANY

R. B. Woodbury
R. B. Woodbury

FORK LIFT RENTAL AND SALES ° WAREHOUSE SPACE
ELECTRIC CABLE ° BOLTS ° MARINE EQUIPMENT

PSY500006016



File
BUS. PHONE TW 1316
RES. PHONE KE 0110

EHRlich'S BUSINESS SERVICES

SWAN ISLAND - PORTLAND, OREGON

PRINTING - LITHOGRAPHING - HELIOGRAPHING

STATIONERY - OFFICE SUPPLIES

"The Flower Wedding Line"

Wedding Invitations - Marriage & Engagement Announcements - Birth Announcements

Oct. 1, 1954

The Port of Portland
Swan Island
City

Gentlemen:

This is to inform you that we are vacating building in which we are now located on North Lagoon Avenue on November 1, 1954.

Please consider this letter as 30 days notice in accordance with our agreement.

Yours truly,

A. F. Ehrlich
A. F. Ehrlich

Open

PSY500006017

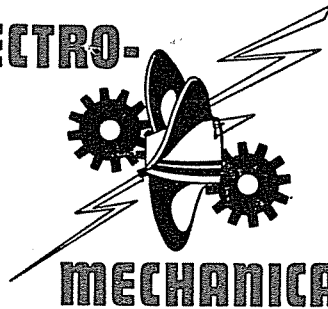
ADDRESS ALL CORRESPONDENCE TO
P. O. BOX 7752—ALBINA STATION

SWAN ISLAND

PORTLAND 12, OREGON

TWINOAKS 8885

ELECTRO-



MECHANICAL CO.

SEATTLE REPRESENTATIVE
1025 W. SPOKANE ST.
SEATTLE 4, WASHINGTON

MAIN 8930

INDUSTRIAL AND MARINE SERVICES, EQUIPMENT AND SUPPLIES

May 19, 1954

The Port of Portland
Swan Island
Portland, Oregon

Attention: Mr. R. H. Mills

Subject : Lease of Space in Building No. 10, Swan Island

Gentlemen:

Pursuant to the verbal instructions received from you during our conversation of even date relative to the subject matter, we herewith make formal application to lease the area in Building No. 10 on Swan Island, which has been blocked out on the print which is attached to and made a part of this application.

In connection with this request, we would desire to remove the existing temporary wall from its present location, as shown on the print, to a point approximately twenty (20) feet South; this to be done at our expense.

The need for this additional space is urgent and results from the necessity of immediately vacating the area in Bay 1, Building No. 4, which is presently being used by us on a sub-lease from Columbia Supply Co. for the purpose of storing marine cable. The maintenance of this stock in Portland and Swan Island is vital to the ship repair industry here in that there is no other similar stock immediately available in the area.

For the foregoing reasons there exists an urgency with reference to the removal of this material from its present location and your prompt action on our request will be sincerely appreciated.

Very truly yours

ELECTRO-MECHANICAL CO.

W. J. Troudt
W. J. Troudt

RAYTHEON

WJT/mgt

GENERAL ELECTRIC

RCA

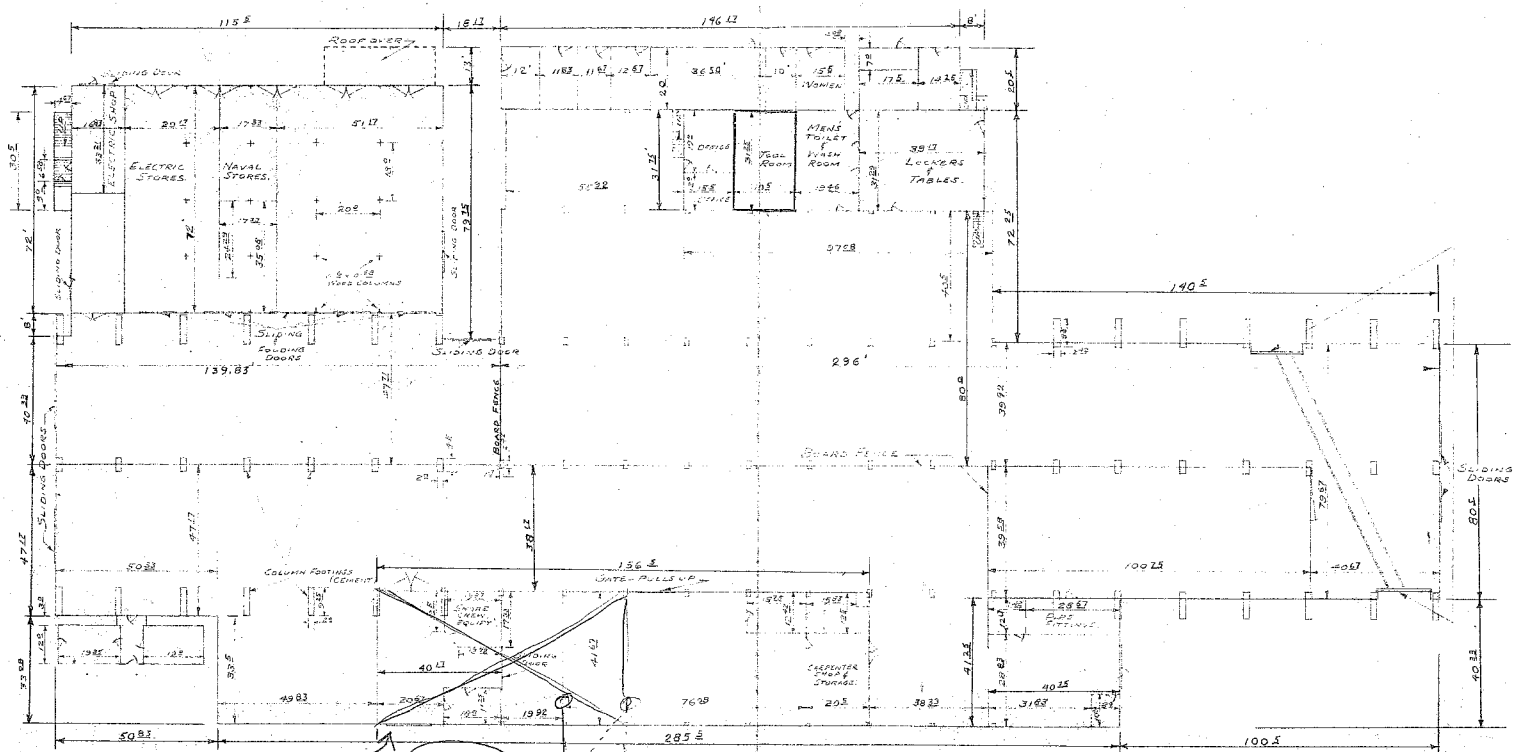
PAULUHN

JOHNS-MANVILLE

HOBBS

MAY & SMITH

PSY500006018



Existing Temp Wall

Bldg 4

FLOOR PLAN
BLDG. No. 10.
MAIN FLOOR
SCALE: 1"=30'
C.M.C. SEPT., 1952



Fought & Company Inc.

STEEL FABRICATION

SWAN ISLAND

5595 N. LAGOON AVENUE

PORTLAND, OREGON

Mail Address

P. O. BOX 4297

PORTLAND 8, OREGON

December 10, 1954

Port of Portland
Portland, Oregon

Gentlemen:

This will refer to the lease agreement between the Port and Fought & Gray, Inc., which is dated November 30, 1951, and covers Building No. 9 on Swan Island and other premises more particularly described in said lease and is for a term ending December 31, 1954.

We have been discussing with your Mr. Winn and Mr. Mills the matter of extending the term of said lease. In accordance with said discussions, we herewith offer to the Port of Portland to extend the term of said lease dated November 30, 1951, on the following conditions:

- (1) The extended term of said lease shall begin January 1, 1955, and end December 31, 1959, and
- (2) The lease shall be modified so as to grant to Fought & Company, Inc. as Lessee, the right, without penalty to terminate said lease effective at the close of any calender year during the extended term of the lease by giving written notice to the Port of Portland of its intention to so terminate at least sixty (60) days prior to the end of the calender year at which such termination is to become effective.

For your information, the corporate name of Fought & Gray, Inc. was formally changed, some months ago, to Fought & Company, Inc.

If the above proposal is acceptable to the Port, will you please so indicate your acceptance on the attached duplicate of this letter and return it to us. Upon your acceptance in this fashion, we will consider that the lease is so modified and the term so extended, and at our mutual convenience the formal papers can be drawn and signed.

Respectfully yours,

FOUGHT & COMPANY, INC.

By

Jos. M. Fought

*File 29-C**

GENERAL SERVICES ADMINISTRATION



Public Buildings Service
Federal Office Building
Seattle 4, Washington

June 16, 1954

In Reply Refer To: LOPBA

The Port of Portland
916 Spalding Building
Portland 4, Oregon

Gentlemen:

This is to notify you that effective, at the close of business,
June 30, 1954 General Services Administration's lease expires at Swan
Island and water service, presently furnished under Contract No.
GS-10B-1060, will no longer be required.

Very truly yours,

A. W. Walker, Jr.
A. W. Walker, Jr.
Acting Chief
Buildings Management Division

Run
Cancelled as of May 31, 1954

GENERAL SERVICES ADMINISTRATION



Public Buildings Service
909 First Avenue
Seattle 4, Washington

October 14, 1954

In Reply Refer To: LOPRL
Lease No. GS-10B-1225
Portland, Oregon

REGISTERED MAIL
RETURN RECEIPT REQUESTED

The Port of Portland
Swan Island
Portland 18, Oregon

Gentlemen:

Reference is made to Lease Number GS-10B-1225, dated June 3, 1954, covering premises described as follows:

Approximately three hundred eighty-five (385) square feet of office space being rooms numbered 15 and 16 on the basement floor of Building No. 7, 5848 N. Lagoon Avenue, Swan Island, Portland, Oregon.

Since the above space is being vacated by the Portland Detachment, Columbia River Group, Pacific Reserve Fleet, on November 1, 1954, and is no longer required for occupancy by any other Government agency, it will be necessary that the lease be cancelled. Therefore, in accordance with Paragraph 3 of the lease, you are hereby notified that said lease is terminated, effective at the close of business November 12, 1954.

May we express our appreciation to you for having made this space available for Government occupancy.

Very truly yours,

C. L. EAST
Acting Chief, Leasing Branch
Real Estate Division

NOV 11 1954

GENERAL SERVICES ADMINISTRATION



Public Buildings Service
909 First Avenue
Seattle 4, Washington

May 19, 1954

In reply refer to: 10PRL
Lease GS-10B-734, Portland

The Port of Portland
Swan Island
Portland 18, Oregon

Gentlemen:

Enclosed for your retention is a fully executed copy of Supplemental Agreement No 2 to Lease GS-10B-734 covering space in Buildings 1 and 24, Swan Island, Portland, Oregon, occupied by Government agencies.

Thank you for your cooperation in this matter.

Very truly yours

Harry J. Broomfield
Chief, Leasing Branch
Real Estate Division

Enclosure

PORT AND GENERAL ELECTRIC COMPANY

Electric Building • 621 S. W. Alder Street • Portland 5, Oregon

29C



Stranix
Hal Davis

December 15, 1954

Mr. J. J. Winn, Jr.
General Manager
The Port of Portland
5848 N. Lagoon Avenue
Portland 18, Oregon

Dear Mr. Winn:

Subject: Temporary Electric Service Installation
for Premier Gear and Machine Works,
Swan Island

Information and plans regarding delivery of electric service to Premier Gear and Machine Works have been discussed personally with Mr. Joe Rollins, representing Mr. Hal Davis, and Mr. Jack Stranix. The electric service can be provided as shown on the attached sketch.

The Portland General Electric Company requests permission to install the necessary facilities to serve Premier Gear and Machine Works who will sub-lease space in Building #56. Your early consideration of this matter will be greatly appreciated.

Sincerely,

Kevin T. Cadigan
Kevin T. Cadigan
Industrial Sales Engineer

KTC:Y
Attach.

OK H.D.

PSY500006024

29-c

March 1, 1954

Columbia Supply Company
Swan Island
Portland 18, Oregon

Attention Mr. Ray Woodbury


Gentlemen:

Your subtenant, Park Loading Company, is operating an open stove in Bay #6 of Building #4. The operation of this stove adversely affects the insurance rates on the entirety of Building #4, and we therefore request that you have it removed immediately.


Park Loading Company has been contacted on various occasions by the Port's insurance agent and has been requested to remove the subject stove, but since they have refused, the Port now requests you to take the necessary steps since they are your subtenant under the approval of the Port.

Very truly yours,

THE PORT OF PORTLAND


JOHN J. WINN, JR.
General Manager


RAM:se


cc: Park Loading Company

PSY500006025

29-C*

May 7, 1954

General Services Administration
201 U. S. Courthouse
620 S. W. Main Street
Portland 5, Oregon


Attention Robin L. Small, Realty Officer

Gentlemen:

Enclosed find two executed copies of lease
amendment sent us with your letter of April 26, 1954.

Very truly yours,

THE PORT OF PORTLAND



JOHN J. WINN, JR.,
General Manager

JPD:mw
Encl. (2)

PSY500006026

file 29C
October 20, 1954

General Services Administration
Public Buildings Service
909 First Avenue
Seattle 4, Washington

Ref: IOPRL
Lease No. GS-10B-1225
Portland, Oregon

Attention: Mr. C. L. East, Acting Chief
Leasing Branch, Real Estate Division


Gentlemen:

This will acknowledge receipt of your letter of
October 14, 1954, giving notice to vacate space in Building
7, Swan Island, on November 12th.

Loss of your tenancy is regretted and we shall
hope Port property may serve you in the future.

Very truly yours,

THE PORT OF PORTLAND


JOHN J. WINN, JR.
General Manager


RAM/pb

PSY500006027

29-CX

May 26, 1954

General Services Administration
201 U. S. Court House
620 S. W. Main Street
Portland, Oregon

Attention Robin L. Small

Gentlemen:

In accordance with verbal request of the Portland Detachment of the Pacific Reserve Fleet, The Port of Portland is willing to rent office space in Building #7, 5848 N. Lagoon Avenue, Swan Island. The space consists of 385 square feet, as shown on the attached plat. Room numbers are 15 and 16.

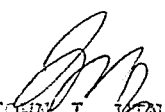
Rental of the subject area is at the rate of \$1.50 per square foot per year, or \$48.13 per month. Services included are electricity and water. Janitorial services will not be provided.


Work is presently being done on the space consisting of repair and repainting, but will be ready for occupancy on June 7, 1954.

If this meets with your approval, will you please prepare the necessary document for execution by both parties.

Very truly yours,

THE PORT OF PORTLAND


JOHN J. WINN, JR.,
General Manager


RAM:mv
Encl.

THE PORT OF PORTLAND

*How will our delay in
PGE? Could they proceed
at S. end of Bld. 4 now
not do anything with sub at
2 at this time? Is E at
June 12, 1964*

TO: R. F. Dow

FROM: L. A. Long

SUBJECT: Portland General Electric Company Service Revisions
on Swan Island

*F at N. end of Bld. 4, and G S. end
what would it cost Port to do
in sub at S. end of Bld. 4, also
of Bld. 4.*

6-15-64

Don

In a meeting June 5, 1964, between Don Lengascher, P.G.E. Power Sales Engineer, and Hal Davis and Loren Long, Port Electrical Engineers, P.G.E.'s plans for "cleaning up" power service facilities on the downstream end of Swan Island were discussed.

P. G.E. plans to eliminate their Substations A & B, which now are being used only as switchyards, when their new overhead construction on new Channel Avenue is completed and the old Channel Avenue overhead is razed. At the same time, they plan to revamp Substations E, F, & G, serving buildings 4 and 2, with modern pad-mount transformer equipment, which will have no exposed live parts, and will therefore not need fencing for public safety.

Substations E and F, because building #4 has complete secondary switchgear installed inside, will present no problem in reconstruction. Substation G, on the other hand, will require completely new secondary switchgear. This can be installed either in a "transclosure" type outdoor housing adjacent to the transformer, or indoors at the service points; in either case a Port expenditure estimated to be at least \$10,000 would be necessary.

The use of existing duct banks and 11,000 volt cable for both temporary and permanent primary feeds to Substations E, F, and G was discussed. Since the use of the area between building #2 (Woodbury) and razed building #13 apparently has not been fixed, it is not known how much of the existing duct banks can be expected to be retained. Because future development south of building #2 to new Channel Ave. has not been fixed, Substation G should not be rebuilt because its total requirements cannot be determined. It is assumed that very little extension in either direction is possible at building #4; however, it is desired not to locate a substation at either end in locations where later interferences would develop with roadways or offices. Until more is known of the plans for development of these areas, it is difficult to determine how permanent any power company redevelopment can actually be.

When definitive information can be collected on the above area developments, it is to be transmitted to P.G.E. to help them plan their requirements; the program, south of building #2 will help the Port's electrical engineer plan new service equipment fed from Substation G and serving building #2 and its satellites, if any.

LAL
LAL:mb

PSY500006029

June 17, 1964

TO: R. F. Dow

FROM: L. A. Long

SUBJECT: Portland General Electric Company
Service Revisions on Swan Island, Part II

Further discussions have been held with Don Lengacher regarding the present uncertainty of development around Buildings 2 and 4. The following tentative plans are evolving:

Substation "E" (South end of Building 4): PGE will plan a pad-mount transformer or "Trans-Closure" housed transformer station on the present substation pad. The station will be mounted over the secondary conduits going in to Building 4, and might possibly also set over one of the primary ducts going to Manhole 17. More likely, two existing primary ducts will have to be intercepted below ground and extended to a suitable location in the substation pad. The pad would be cut down to the necessary size and all unnecessary structures removed, including the fence, primary rack, excess ducts extending above ground, etc. There will probably be no cost to the Port for this revision. This construction would probably not interfere with future plans, since the area affected is narrow and street location is fairly well defined.

Substation "F" (North end of Building 4): Ultimately this probably will be treated similarly to Substation "E". For the present, however, Substation "F" constitutes no particular safety hazard nor is it particularly objectionable in appearance, tucked in as it is between two office areas where it is well protected. The primary feeder for this station is now from Manhole 17; this can continue as long as is necessary.

Substation "G" (South end of Building 2): This substation is simultaneously most objectionable in appearance and the most hazardous of the three substations, and the hardest one to deal with because of unmade area development plans. Any work done here would require a great deal of work, because of the dilapidated condition and the absolute obsolescence of some of the equipment; and P.G.E. would rather invest such work in a permanently located substation. Fortunately, underground connections to feed this substation can be made between Manhole 17 and Manhole 19, using Port-owned cable now idle (thus getting all loads off Substation "A") without working on Substation "G" itself; the substation can be left in place a year or so without significantly greater danger of breakdown than has existed for the past two years.

Primary power service to these three substations (E, F, & G) can be handled in several ways. The most logical appearing one at the present time is to set a single cable pole adjacent to the Substation "B" site, and extend one primary duct up the pole so that existing cable between Substation "B" and Manhole 17 can be used. This would result in the minimum requirement for new cable and underground duct installation, and thus should also result in the minimum of cost for the revised system.

PGE Service Revisions on Swan Island on Swan Island, Part II
June 17, 1964
Page 2

Following the above plans, PGE can move fairly quickly to remove Substations "A" and "B" to ground level, and to build the new Substation "E." By the time this work has been completed, the problems surrounding Substations "F" and "G" may be near enough solution to permit planning there. If this outline appears satisfactory, perhaps a memo should be written to Don Lengacher indicating this approval.

LAL:mb

June 12, 1964

TO: R. F. Dow

FROM: L. A. Long

SUBJECT: Salvage of Equipment to Port When P.G.E. Substations A,B, E, F, and G are Razed or Revamped.

Examination of the various substations scheduled by Portland General Electric Company for removal or reconstruction reveals several items of use to the Port which will be scrapped by P.G.E. because they no longer have systems employing these models. These items include the following:

1. Single pole 14.4 kilovolt non-load-break disconnecting switches: We use these in our substations 1, 3, 4 and 5. An oral agreement has been made that PGE crews will either leave these up in the dead substation for us to remove, or will remove them for us to pick up, with no paperwork or other red tape.
2. Oil circuit breakers, 14.4 kilovolt 600 ampere load break: We use these in our Substations 1, 4, and 5. Because it is not considered an expendable item by P.G.E., negotiations would be required to buy, at salvage prices; one or more of these units as they are released from service.
3. General Electric Company Model A1-2 Air Circuit Breaker, 1200 ampere, 3 pole, 600 volt A.C. or 250 volt D.C.: We have many of these installed in our A.C. and D.C. ship service systems, and have found need for more, both for increasing system flexibility and occasionally for replacement of units requiring service. We should certainly get the two units known to be in P.G.E. substations on the island, if it is possible.

good
what do you
recommend?
Do you need them?
check with AJH.

what would we
have to do to
get a price on
these? Do we
have any cable
we could trade?

Prices on items 2 and 3 are not known. Vancouver Shipyard prices on item 3 started at \$125 in the recent "final auction," while "rebuilt like new" units can be purchased from the east coast at \$800 F.O.B. Swan Island.

LAL:mb

6-12-64
allen

June 17, 1964

TO: R. F. Dow

FROM: L. A. Long

SUBJECT: Salvage of Equipment to Port When P.G.E.
Substations A, B, E, F, and G are Razed or
Revamped - Part II.

Reference 3: General Electric Co. Model AL-2 Air Circuit Breaker, 1200 ampere, 3 pole, 600 volt A.C. or 250 volt D.C.: The existence of these breakers was noted to Don Lengacher, and he asked if there were identification numbers put on by P.G.E. Co. Examination of the equipment through the fence does not reveal any such numbers, and comparison of U.S. identification numbers with such numbers listed in the PGE purchase agreement (our carbon copy) with War Assets Administration does not indicate P.G.E. ownership of these two breakers. Ergo, they may already be Port property. If so, they will become available when Sub. G is rebuilt.

Reference 2: Oil Circuit Breakers: No price has been calculated for these, but the Port would not have to pay more for them than PGE could get from a used equipment dealer.

The Port currently owns 7 of these breakers, one of which is now spare but scheduled for installation as a primary feeder protection breaker when Substation No. 7 becomes necessary. Tentative planning for reconstruction of Substation No. 4 within the next four years calls for one more unit in that substation, and one spare unit for immediate reinstallation if one fails is good insurance; These two units should be purchased when they can be, if the price is reasonable. Other units could be used for pirating parts if the price is cheap; at least four units still exist in usable condition.

Further study of these two items and of any trading stock will be made, and a final report written when all precincts are heard from.

LAL
LAL:mb

*Note on LL copy asking him to keep me
informed -*



5555 N. CHANNEL AVENUE • P.O. BOX 4367 • PORTLAND, OREGON 97208
503-285-1111 • FAX 503-289-7179 • EASY LINK TELEX 62-784413

November 15, 1995

Suzanne Brooks
Port of Portland
5555 N. Channel Avenue
Portland, OR 97217

**Re: Permit and Right of Entry
Clean Rivers Cooperative, Inc.**

Dear Suzanne,

Attached you will find a copy, for your records, of the Permit and Right of Entry for Clean Rivers Cooperative, Inc., signed and dated November 15, 1995. This is for space that Cascade General, Inc. is currently leasing from the Port, in Building 10.

As always, if you have any questions or concerns, please give me a call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wayne E. Cozad, II'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Wayne E. Cozad, II
Vice President
Business Development

WEC/tcl

Attachment

PSY500006034



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

File - PSY
Transition

November 1, 1995

Mr. Dave Donaldson
Cascade General, Inc.
5555 N. Channel Ave., Bldg. 71
Portland, OR 97217

Re: Operating Plans -
Portland Ship Yard Lease

Dear Dave:

This letter concerns the Operating Plans ("Plans") submitted by Cascade General, Inc. ("Cascade") as required by the Lease between Cascade and the Port of Portland ("PSY Lease") and the Transition Agreement and Amendment to Facility Agreement ("Transition Agreement"). As you are aware, we provided to you on October 18, 1995 a list of numerous items which were missing from the submitted Plans. That list is also attached to this letter, as we have not yet received all of the missing items.

The Plans are not approved by the Port at this time. This letter will provide you with information and direction regarding submission of additional information and documentation to facilitate approval.

We have two concerns which apply to all of the Plans. The first involves staffing. We understand that by the October 2, 1995 due date you were unable to name the individuals who would be occupying specific positions. However, the agreements do require that staffing plans, including the names and qualifications of key personnel, be submitted. We expect that with resubmission of the Plans, you will identify these key personnel. We need assurance that Cascade will have on board the qualified staff needed to operate this facility safely and efficiently.

The Port's second general area of concern involves the overall quality of the Plans. There are numerous inconsistencies in identification of key position titles. There are numerous missing enclosures and many incorrect references. Most of these have been identified by Port reviewers and are listed on the attached memorandum. We expect these deficiencies and inconsistencies to be corrected upon resubmission.

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

Printed on recycled paper.

PSY500006035

Dave Donaldson
November 1, 1995
Page 2

In addition, specific issues of concern are the following:

- PSY Lease Section 1.4.4 requires that sandblast, painting and flammable liquids storage areas be identified in the Plans. It does not appear that this issue has been addressed.
- The Environmental Plans do not include a VOC compliance plan. Such a plan should be included upon resubmission. The compliance plan must address Cascade's plans to achieve and maintain compliance with Department of Environmental Quality requirements concerning emissions at the facility.

Also, although not specifically required, we believe it would be useful for both parties to have an Operating Plan which addresses the damage and destruction provisions of PSY Lease Section 10. Cascade should develop an Operating Plan which outlines its procedures for notification and follow-up in the event of damage or destruction falling within the stated limits.

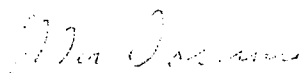
Please recall that these Operating Plans must be complete and approved by the Commencement Date. The Port will need time to review the revised Plans. We expect therefore, that Cascade will resubmit the Operating Plans, with the above corrections and additions made, no later than November 10, 1995. We will respond to the resubmitted documents by the end of November.

Finally, we are concerned that Cascade has not committed sufficient resources to meet all of the requirements of the Agreements by the Commencement Date. We would like to see additional staff devoted to revision and resubmission of the Operating Plans, to meeting the requirements of the Environmental Permitting and Management Agreement, and to preparation for Cascade's takeover of the facility.

If you have questions concerning this letter or the Plans, please call me at 731-7261.

Thank you for your assistance and cooperation.

Sincerely,



Mic Dorrance
Manager, Marine Capital Program

Enclosure

c: Frank Foti
Jonathan Ater

PSY500006036

bc: Mike Thorne
Suzanne Brooks
Kathi Futornick
George McShea
Marie Mullins
Jeff Ring
Cory Streisinger ✓
Jeff Twine



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

file - PSY -
trans. h'on

November 29, 1995

Mr. Wayne E. Cozad, II
Vice President, Business Development
Cascade General, Inc.
5555 N. Channel Avenue, Building 71
Portland, OR 97217

SENT VIA FACSIMILE

Re: Permit and Right-of-Entry
Clean Rivers Cooperative, Inc.

Dear Wayne:

Thank you for forwarding a copy of the Permit and Right-of-Entry under which Cascade General, Inc. ("Cascade") is subleasing space in Building 10 at the Portland Ship Yard ("PSY") to Clean Rivers Cooperative, Inc. Cory Streisinger, General Counsel for the Port, and I have reviewed the Permit, and we have several comments and concerns regarding the language, which concerns are outlined in this letter. Our concerns are serious enough that we request that you immediately contact Clean Rivers Cooperative, Inc. Please inform them that Cascade had no authority to grant rights or indemnities on the Port's behalf and that language in the Permit to the contrary has no effect. We also request that Cascade and Clean Rivers execute a replacement Permit incorporating the changes discussed below.

The Permit states in the first paragraph that "Cascade General, Inc. ("CGI") and The Port of Portland ("Port")" grant certain rights to the Permittee. Cascade has no authority to grant a Permit on the Port's behalf. This reference to the Port should be deleted, and Cascade should not in the future purport to grant rights on the Port's behalf.

The Permit does not name or define the Permittee as Clean Rivers Cooperative, Inc.

The Permit states in Paragraph C that "CGI agrees to provide crane service to Permittee . . ." Unless this reference is to crane service inside the large bays of Building 10, which Cascade is leasing from the Port, Cascade cannot promise to provide crane service at PSY until the Commencement Date of Cascade's lease of PSY ("PSY Lease").

Wayne E. Cozad, II
November 29, 1995
Page 2

The Permit does not contain a provision similar to the "Prime Lease" section required by the PSY Lease to be included in subleases. The following paragraph should be added to the Permit:

Prime Lease. This Permit and Right-of-Entry is subject to the provisions of the lease of specified portions of Building 10 at the Portland Ship Yard dated October 1, 1995 between The Port of Portland (the "Port") and Cascade General, Inc. ("Cascade"), having Port Agreement Number 95-111, (the "Prime Lease"). By exercising its rights under this Permit and Right-of-Entry to occupy the Permitted Premises, Permittee, to the extent the Prime Lease relates to the Permitted Premises or to the exercise by Permittee of any rights under this Permit, agrees to comply with all of the terms and conditions of the Prime Lease, as the same may be amended from time to time, and agrees to be jointly and severally liable with Cascade for the occupation and use of the Permitted Premises or the exercise of any rights granted to Permittee under this Permit. This Permit shall in all ways be subject to the terms and conditions of the Prime Lease. In no event shall the term of this Permit extend beyond the expiration of the Prime Lease.

The Permit states in Paragraph I that the "Permittee understands that CGI property is exempt from property taxation until leased to a taxable entity." We are concerned that this statement may be open to question, and recommend that you consult with your legal counsel on this issue.

The Permit states in Paragraph J that the Port and its commissioners, directors, etc. agree to indemnify others. Cascade has no authority to enter into indemnity agreements on the Port's behalf. We request that the Permit be revised to delete reference to the Port indemnifying others, and that Cascade refrain from purporting to indemnify others on the Port's behalf.

Paragraph K should be rewritten to specifically name the Port as an intended third-party beneficiary. Please include the following language in the revised Permit:

No Benefit to Unnamed Third Parties. CGI and Permittee are the only parties to this Permit and Right-of-Entry. The Port of Portland is an intended third-party beneficiary of each of the covenants contained in this Permit and Right-of-Entry, including but not limited to, any rent, indemnity and insurance provisions. Nothing in this Permit and Right-of-Entry gives or shall be

Wayne E. Cozad, II
November 29, 1995
Page 3

construed to give or provide any benefit, direct, indirect or otherwise, to any other third parties, and no other parties shall be entitled to enforce its terms.

The Permit states in Paragraph T that "Permittee shall also be responsible for disposal of gray water accumulations as a result of Permittee installed wash basin." Please confirm that this process has been discussed with and approved by Port environmental staff.

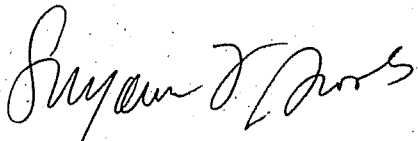
The Permit refers in Paragraph W to CGI's Executive Director. This appears to be language copied from the Port's Permit form; you may wish to change this reference in the revised Permit and Right-of-Entry.

As requested above, please contact the Permittee immediately regarding these issues, and provide a copy of your letter and the replacement Permit to the Port as soon as they are available. If you do not contact Clean Rivers, the Port will do so.

If you have any questions, please feel free to call me at 731-7509.

Thank you for your assistance and cooperation.

Sincerely,



Suzanne L. Brooks
Contracts Administrator
Property and Development Services

c: Cory Streisinger ✓
Mic Dorrance

November 7, 1994

TO: Dick Montgomery

FROM: Mic Dorrance

SUBJECT: COMPANIES WITH ACCESS TO SISRY, PSRY & PSY

Ralph Harwood and I reviewed the docking records at PSY. There are records starting in 1956. The following list indicates by date when each individual company first appears on these records. The accuracy of this data is not confirmed at this time. If more accurate information is needed we will have to cross reference this list with other sources.

Companies using the yard in 1956:

Albina Engine and Machine Works

Floating Marine Ways

General Construction

Gunderson Brothers

Inland Navigation Company

Northwest Marine and Iron Works

Pacific Marine Service

Port of Portland

Portland Shipbuilding

Ray Waters

Russel Towboat

Tide Water

Shaver

Western Transportation

Willamette Iron and Steel

PSY500006041

November 7, 1994

page 2

Companies using the yard in 1956: (continued)

Willamette Tug and Barge

Upper Columbia River Towing Company

Companies that first showed up in 1958:

Coast Guard

Fred Devine

Companies that first showed up in 1959:

Corps of Engineers

Pacific Island Navigation

Companies that first showed up in 1960:

Alaska Northern Express

River Cruisers Inc.

Companies using the yard in 1961:

North Shore Boat Building Company

Zidell

Companies that first showed up in 1964:

Umpqua River Navigation Company

November 7, 1994

page 3

Companies that first showed up 1966:

Schnitzer

Companies that first showed up in 1967:

Pacific Dredge Company

Lasco Shipping (Schnitzer)

Willamette Western Corporation

Alaska Barge and Transportation Company

In 1984 & 85 PSY required Ship Repair Contractors to sign a use permit to obtain access to the yard. This does not mean they were active at the yard, it just means they could perform work. **The following list of companies had access to the yard between 1984 and 1988**

NWMIW

Dillingham

West State Inc.

Cascade General

L & S Marine

Riedel

Gunderson

Pacific Marine Ship Repair

Lockheed

Lockport

PSY500006043

November 7, 1994

page 4

Access to the yard between 1984 and 1988. (continued)

Crosby & Overton Inc.

C. H. Murphy

NW Field Services

NORVAC

In 1988 & 89 the Contractor base was reduced to just NWMIW, Cascade General and WSI.

PSY500006044

CASCADE GENERAL, INC.
AND SUBSIDIARY

Notes to Consolidated Balance Sheet

March 20, 1995

(1) History and Ownership

Cascade General, Inc. (the Company) was formed on August 31, 1987 when substantially all the assets and liabilities of Cascade General, a division of Ledbetter's, Inc., were transferred to the new corporation. Cascade General, Inc. then immediately acquired certain operating assets of the Dil Trust, a liquidating trust for all assets of Dillingham Ship Repair.

During 1992, the Company established a wholly-owned subsidiary, Corrosion Management, Inc.

In October 1994, Ponderosa Acquisition Corporation (Ponderosa) purchased all of the outstanding shares of the Company in a transaction accounted for as a purchase. Also in October 1994, the Company purchased certain assets formerly utilized by West State, Inc. in exchange for the debt which those assets secured.

On March 20, 1995, Global Maritime Services, Inc. (Global) purchased all of the outstanding shares of Ponderosa. Purchase accounting has been applied at the Cascade General, Inc. level. Accordingly, an allocation of the purchase price has been made to the acquired assets and liabilities based upon their estimated fair market values at the date of acquisition. The purchase price allocations include the increase in the carrying value of property and equipment to appraisal values and the establishment of certain assets and liabilities arising from the acquisition. The remaining unallocated purchase cost is the Company's estimate of goodwill associated with the acquisition.

(2) Summary of Significant Accounting Policies

(a) Principles of Consolidation

The consolidated balance sheet includes the accounts of the Company and its wholly-owned subsidiary, Corrosion Management, Inc. All significant intercompany balances have been eliminated.

(b) Inventory

Inventory is stated at the lower of cost (first-in, first-out method) or market. Inventory consists entirely of raw materials used in ship repair.

(c) Goodwill

The Company has classified as goodwill the cost in excess of fair market value of the net assets associated with the acquisition by Global on March 20, 1995. The purchase price allocation is subject to refinement until all pertinent information regarding the acquisition is obtained. Goodwill is amortized on a straight-line method over fifteen years.

(Continued)



PORT OF PORTLAND

August 9, 2000

Ms. Joan M. Woody, Chief
Commercial Division
NATIONAL VESSEL DOCUMENTATION CENTER
2039 Stonewall Jackson Drive
Falling Waters, West Virginia 25419

Re: M/V FLOATING DRY DOCK #3 – Official Number: 1101370
M/V FLOATING DRY DOCK #4 – Official Number: 1101371

Dear Ms. Woody

On August 7, 2000 M/V FLOATING DRY DOCK #3 was awarded Official Number 1101370 and M/V FLOATING DRY DOCK #4 was awarded Official Number 1101370, as a result of an application filed by the Port of Portland (the "Port"). M/V FLOATING DRY DOCK #3 and M/V FLOATING DRY DOCK #4 are called, collectively, the "Vessels."

The Port has entered into an agreement to transfer title to these Vessels to Portland Shipyard LLC, an Oregon limited liability company ("PSY") and, consequently, PSY will complete the documentation of the Vessels, as owner. In that regard, the parties respectfully request that the Official Number for each of the Vessels be re-awarded to PSY so that upon completion of the transaction PSY's ownership of said Vessels can be properly documented.

We appreciate your assistance and cooperation in this matter and, if you have any questions, please contact Ms. Irene Dunn at Marine Documentation, Inc. (Telephone Number 304/263-1113).

Very truly yours,

THE PORT OF PORTLAND

By: 

Name: Mike Thorne

Title: Executive Director

Cc: Ms. Carmen M. Calzacorta
Mr. Michael Silvey
Mr. J. Patrick Beauchamp

A. INTRODUCTION

The Portland Ship Repair Yard (PSRY) began shortly after the establishment of the Port of Portland in 1891. In the St. John's area of the city, it had a small facility for repairing sailing ships and river craft calling on Portland. In 1921, a five section wooden drydock with 15,000 ton lift capacity was added. This drydock is in use today in St. John's for the construction of the new Burlington Northern railroad lift span.

At the outset of World War II, Kaiser Shipyards established five facilities in the Portland-Vancouver area for ship construction. One of the largest was the present day Swan Island sight of PSRY. This yard employed 35,000 workers and delivered over 120 T-2 tankers and several escort ships. At the end of the war, the Port acquired the shipyard and moved the drydock to Swan Island.

In the 1960's PSRY was expanded to meet the needs of the larger ships calling on Portland and other West Coast destinations. Through this period, PSRY developed a growing reputation for quality performance. The prime ship repair contractors were Albina Engine and Machine Works, Northwest Marine Iron Works (both family owned businesses) and Willamette Iron and Steel Co. (a subsidiary of Guy F. Atkinson Co.).

The coming of the Trans-Alaska Pipeline and the coastal transport of oil in very large crude carriers (VLCC's) brought about an opportunity which the Port, the Contractors and the community were quick to seize. In 1978 an \$84 million bond issue was passed by the voters and a major expansion of PSRY was undertaken.

This expansion project created the premiere ship repair facility on the West Coast of North America. Today, PSRY has the largest (87,000 tons lift) capacity drydock and the most (11) deep water repair positions and the largest skilled work force (2,500) of any commercial ship repair yard on the West Coast.

The unique concept of a publicly owned and operated shipyard, shared by three private prime ship repair contractors and over twenty subcontractors has evolved over 40 years. In recent years, PSRY management has taken a more active role in diversifying the assets of the shipyard to generate new job opportunities and revenue streams from such activities as industrial fabrication and long term ship lay-up. PSRY management is also assisting the prime ship repair contractors in attracting new lines of business such as fish boat conversion and cruise ship repair.

B. CURRENT MARKET SITUATION

For the last ten years, the U.S. shipbuilding and ship repair industry has declined at the annual rate of 7 percent. This is largely due to the elimination of commercial shipbuilding subsidy programs and the rapid decline in the U.S. merchant marine.

With the completion of a major Navy buildup driven by the Reagan administration, the decline is expected to continue unabated. Major shipbuilders will have a small Navy ship replacement program with intense competition for the 20 or so ships that will be needed. Those without a secure position are closing or turning to ship repair. This intensifies the competition for this market, drives "low ball" bidding, and provides minimum profit in this work.

The Navy is the largest customer of the U.S. ship repair industry, accounting for almost 90 percent of volume on the West Coast. The vast majority of the work is "homeported" or kept close the ships base of operation. Although Portland is included in the Puget Sound homeport area, the work available for competition will be less than \$120 million and competed among 3-7 shipyards for the foreseeable future.

PSRY is unique among West Coast shipyards, having access to the Alaska tanker market (50 ships) by virtue of the large drydock. Work available from this source is secured by U.S. cabotage law (the Jones Act which is under continuous attack) and the throughput of the Alaska pipeline (which will decline soon without further finds and development in Alaska). Here, PSRY must compete with Far East shipyards, notably Korea, to maintain a dominant (80 percent) position.

The emergence and continuing growth of the Alaska cruise ship market has provided a new opportunity for PSRY. Over 25 ships are engaged in this seasonal trade and one or two ships will be added each year for the foreseeable future. PSRY contractors now attract eight of these ships, with further penetration limited by drydock availability.

PSRY's industrial land served by water is being marketed to the oil industry for the production of onshore Alaska and offshore California oil production facilities. The shipyard is currently positioned to handle a single major outdoor project (about 750 workers) and a smaller indoor project (150 workers). Success in this market is driven by the development budgets of the major oil companies which is sensitive to the price of oil.

C. RECENT PSRY SITUATION

In spite of the upheaval in the industry, PSRY has been able to increase the volume of business each of the last five years. Through this period PSRY has not been immune from the turmoil.

In 1985, PSRY attracted Lockport Marine Co. (a subsidiary of Lockheed Corporation) to begin operations in Portland. This company successfully pursued Navy and Coast Guard repair work as well as the construction of superstructures entering in to major ferry conversions at Lockheed in Seattle. In late 1986 Lockheed Corporation decided to exit the marine industry and the Lockport operation was closed.

In 1986, Kohlberg, Kravis and Roberts, the parent of Dillingham Ship Repair (the successor to Albina Engine and Machine) decided to liquidate the ship repair operation in Portland. Dillingham was in the midst of a bitter labor dispute and had a series of marginal, if not unprofitable, projects.

In that same year, several of the key staff from Dillingham created a "start-up" ship repair operation in PSRY. West State Inc. is a remarkable success story. In the first year of operations, the company grew to \$25 million in annual sales.

The assets liquidated by Dillingham were acquired by a small waterfront and industrial repair firm, Cascade General Inc. In 1987, Cascade began operations at PSRY with a slow growth strategy and is currently producing about \$20 million in annual sales.

Also in 1986, Northwest Marine Iron Works sought Chapter 11 bankruptcy protection owing primarily to a succession of unprofitable Navy projects. In 1987, the company emerged from bankruptcy with an approved plan that has been difficult to fulfill. Northwest Marine is currently the largest volume contractor with about \$75 million in annual sales.

The fall in oil prices which began in 1985 brought about an end to oil company developments. With the completion of the ARCO Lisburne Project (1,000 workers at peak) only small indoor projects have been performed until now. ARCO has sited and awarded the first major project in four years at PSRY.

With all of this, it is important to remember that PSRY has continuously increased sales, employment and revenue.

D. CURRENT CONTRACTOR SITUATION

PSRY relies on the contractor network as the ultimate source of about 75 percent of revenues. The well-being of that network is important to revenues and more importantly the stable and growing employment opportunity for the community.

NORTHWEST MARINE IRON WORKS

Northwest Marine is focused on having at least one major Navy overhaul in progress at all times employing about 500 workers. This has proved difficult in the face of low ball competition who, unlike Northwest, are able to recover in the pricing of new and emergent work.

In addition, they have attracted a base of work in the Military Sealift Command, the tanker community, and in cruise ships. They are noted for quality and on-time work.

Northwest is not sound financially. They are limited by the bankruptcy plan, the bank line of credit, and no bonding capacity. They are in a continuous cash poor situation leading to slow and late pay. The future of Northwest Marine is in doubt. PSRY is in the position of helping as much as possible without becoming too entangled in the life support system.

WEST STATE INC.

West State Inc. can be characterized as "lean and mean". They specialize in VLCC repair work for the major oil companies with an occasional job for Marad and the Military Sealift Command. They have a small nucleus management staff and increase or decrease the work force dramatically to fill project requirements.

West State Inc. is having financial difficulty reflected in slow and late pay to PSRY, suppliers and subcontractors. The results of several projects are in dispute with the ship owner. Their bank line of credit has been exceeded and their bonding capacity is small. Several key staff have left the company recently.

West State's future is uncertain. Their future success depends upon negotiating the disputed work and wooing dissatisfied customers back. West State Inc. is a virtual "one man band" led by Doug Watson. His plan for the future (not clearly understood by PSRY management) is important to PSRY success.

D. CURRENT CONTRACTOR SITUATION (cont'd)

CASCADE GENERAL INC.

Cascade General has a stated strategy of slow and steady growth. They attract work that adds to the financial health of the company and maintains a steady carefully chosen work force.

Their target market is commercial ship repair, non-Navy government ship repair and long term industrial work. Cascade has attracted the key staff departing from West State.

Cascade is waiting to see what happens in the current contractor network with an eye on picking up the pieces from the failure of either Northwest or West State.

They consciously work at being a good tenant and building a good relationship with PSRY management.

LEASE INFORMATION FOR
THE PORTLAND SHIP YARD

<u>TENANT</u>	<u>PREMISES</u>	<u>RENT</u>	<u>TERM</u>	<u>PERMITTED USE</u>
Amsco Refrigeration	Bldg 43 office & shop	\$1,934.08	month-to-month	Office/shops for refrigeration/heating business
Cascade General	446,393 sf of shop, office, yard, parking, and other space	\$99,886.11	varies, primarily month to -month	
Cavi-Tech, Inc.	Yard Space	\$111.60		
	180 sf office space	\$144.00		
	2 parking spaces	\$24.00		
Foss Environmental	Bldg 70 Office, shop, & 2.225 acres	\$8,208.52	1/7/80 - 1/6/2002	Ship repair, tank cleaning & sandblasting shops; offices & parking
Diamond K	Bldg 80 - 540 sf office	\$297.00	month-to-month	Office for surface preparation & painting business
	Bldg 80 - 6,000 sf yard space	\$360.00		
	1 parking space	\$12.00		
Farr West Marine, Inc.	Bldg 10 office-580 sf office space	\$261.00	month-to-month	Offices related to ship repair
Fraser Boiler & Diesel	Bldg 10 shop - 4,800 sf	\$1,200.00	month-to-month	Shop/office for ship repair business
HAZMAT Solutions, Inc.	Bldg 10 Upstairs office - 440 sf office	\$286.00	month-to-month	Offices for hazardous materials training & environmental consultant business
	1 parking space	\$12.00		

<u>TENANT</u>	<u>PREMISES</u>	<u>RENT</u>	<u>TERM</u>	<u>PERMITTED USE</u>
InMar Sales, Inc.	Storage area for paint - 5,500 sf	\$330.00	month-to-month	Paint storage & office trailer
Jiggs Floors, Inc.	Bldg 10 office - 484 sf	\$193.60	month-to-month	Offices for ship repair business
Lips Propellers	Yard space for Bldg 64 - 5,000 sf	\$300.00	month-to-month	Propeller repair & storage
Mar Com Inc.	Bldg 4 Annex office - 420 sf office	\$231.00	month-to-month	Offices for ship repair business
	1 parking space	\$12.00		
Mar Com Inc.	Bldg 10 Bays - 25,260 sf	\$5,809.00	month-to-month	Offices/storage for industrial fabrication & machining; ship repair
Marine Vacuum Service	Bldg 4 - 1,020 sf office space	\$433.50	month-to-month	Office/storage for tank, bilge & boiler cleaning business
	4 parking spaces	\$48.00		
	Paved yard area	\$131.22		
Marine Propulsion Services	Yard space for blast shed - 1,500 sf	\$90.00	month-to-month	Surface preparation of turbines, fans & other equipment fabricated or repaired by Lessee.
	Bldg 50 Bay 2 - 3,125 sf	\$937.50		Offices/shops/storage for turbine repair business; machinery repair; manufacturing
	Bay 4 - 3,310 sf	\$993.00		
	Bldg 80 shop - 1,106 sf	\$221.20		
	5,066 sf yard space	\$303.96		
	12 parking spaces	\$144.00		
	Bldg 4, Bay 3 storage 1,898 sf	\$474.50		

<u>TENANT</u>	<u>PREMISES</u>	<u>RENT</u>	<u>TERM</u>	<u>PERMITTED USE</u>
John C. Murdoch, Inc.	Bldg 10, Office Suite B - 230 sf	\$195.50	month-to-month	Offices for marine surveying business
Gary J. Strait	Bldg 10 office space - 800 sf	\$440.00	month-to-month	Office/storage for ship repair testing & inspection service
	Bldg 10 office space - 1,200 sf 9 parking spaces	\$720.00 \$108.00		
Northwest Envirocon Inc.	Bldg 10, Shop 1 - 3,560 sf	\$1,246.00	month-to-month	Office/shop for manufacturing of insulation
Pacific Dynamics	Bldg. 80, Office - 450 sf 2 parking spaces	\$225.00	month-to-month	Office for tank, bilge & industrial cleaning business
		\$24.00		
Portland Shipyards Training	Bldg 10 Training Center (pays utilities only)	\$1,000.00	month-to-month	Offices for classroom & practical training in welding, painting, etc.
Thermal Services, Inc.	Bldg 4 Annex office - 640 sf 4 parking spaces	\$320.00	month-to-month	Office/storage for thermal mechanical insulation business
		\$48.00		
Walashek Industries, Inc.	Bldg 10 Shop 3 - 1,680 sf	\$420.00	month-to-month	Office for light machine work; welding; fitting of boiler & machinery parts; boiler repair business
Wellons, Inc.	Bldg 4 Bay 1 - 12,500 sf	\$2,875.00	month-to-month (terminating 6/30/95)	Industrial fabrication for manufacture of heat exchangers

<u>TENANT</u>	<u>PREMISES</u>	<u>RENT</u>	<u>TERM</u>	<u>PERMITTED USE</u>
W & O Supply, Inc.	Bldg 72 Bay 1 shop - 5,000 sf	\$1,500.00	month-to-month	Warehouse/storage of valves & fittings used in ship repair, construction & conversion
	3 parking spaces	\$36.00		



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000
Writer's Direct Line: 731-7030

August 2, 1995

Mr. Jonathan B. Hall
Contracting Officer
Nav Sea Systems Command
2531 Jefferson Davis Highway
Arlington, VA 22242-5160

**Via Fax and
Overnight
Express**

Re: Dry Dock YFD 69 -- Contract No. N00024-79-L-0003

Dear Mr. Hall:

The Port of Portland hereby withdraws its request for consent to sublease of Dry Dock YFD-69, as contained in my letter dated June 2, 1995. To respond to the Navy's concerns, we intend to enter into a management agreement for YFD-69 rather than a sublease. Under the terms of this management agreement, the manager will make YFD-69 available on an equitable basis, in accordance with a published price schedule, for use by any Navy-certified ship repair contractors for the performance of Navy work.

As we have discussed, no action by the Navy is required in light of the Port's withdrawal of its request for consent. We appreciate the your and Mr. Scovill's consideration of our situation, and please feel free to contact me if you need any further information about our plans.

Sincerely,

Cory Streisinger
General Counsel

cc: Nick Peak, SUP SHIP
George McShea
Jeff Twine
Tom Decker
Jonathan Ater

1-30-40.1
D. Macdonald w/encs
C. McLeskey w/encs
B. Crofoot w/encs

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:

YFD-69
Ser 460-2488
7 MAY 1980

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Port of Portland, Portland, Oregon

Subj: Lease Contract N00024-79-L-0003, Floating Drydock YFD-69; Joint
Physical Condition Survey and Joint Inventory

Ref: (a) NAVSEA ltr 0704L/HJ ser 153 of 14 JUN 1979

Encl: (1) Joint Physical Condition Survey
(2) Joint Inventory
(3) Underwater Hull Inspection Report

1. Pursuant to reference (a), a joint physical condition survey and
inventory report consisting of enclosures (1) through (3) is submitted.

J. D. WINSTON
By direction

Copy to:
CNO (NOP-43N)
NAVSEA (0704)
Port of Portland (2 cys)



PSY500006057

MATERIAL INSPECTION SUMMARY

FLOATING DRYDOCK

YFD-69

NAVAL SEA SYSTEMS COMMAND -

Lease N00024-79-L-0003

Port of Portland, Oregon

For the period ending

March 1980

PSY500006058

PART I. General

1. The YFD-69 is a Navy-owned 528-foot overall length, 90-foot beam, 14,000 ton displacement at 18-inch free board, steel floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon free-board. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under facilities contract N00024-79-L-0003. The drydock is moored at the Contractor's plant and has been in service at that plant since 01 December 1949.
3. The drydock is moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier. The two end sections and the center section were drydocked for inspection and underwater repairs during the period September/October 1975.
4. The Inspection Board appointed to inspect the drydock consisted of Mr. C. W. Schmidt from the office of the Supervisor of Shipbuilding, Seattle; Messrs. R. Wright, F. Pelto, and C. Kincaid from the Resident Office of the Supervisor of Shipbuilding, Portland; Messrs. C. Requa and Murdock from the Port of Portland. The inspection was conducted during the period 25 February through 31 March 1980.
5. Previous inspection was made in July 1978.
6. The following components were placed in preservation without repair at last major overhaul:

None
7. The following equipment is stored ashore:

Spare parts.

PART II. Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>	<u>Grade</u>
Hull (Part II 2)	GOOD
Mechanical (Part II 3)	GOOD
Electrical (Part II 4)	GOOD
Fittings (Part II 5)	GOOD
Utilities (Part II 6)	GOOD
Miscellaneous (Part II 7)	SATISFACTORY
Cleanliness and good housekeeping	GOOD
Preservation of equipment not in use (Part I 6)	N/A
Overall material condition	GOOD

2. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
Exterior			
Pontoon			
1	Bottom	S	S
Sides			
2	Below waterline	S	S
3	Waterline	S	S
4	Above waterline	S	S
5	Deck	U	S

2. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
Wingwalls				
6	Outboard face	S		S
7	Inboard face	U		U
8	Ends	S		S
9	Deck	U		U
Interior				
10	Compartment No. 1	S		S
11	" " 2	S		X
12	" " 3	S		S
13	" " 4	S		X
14	" " 5	S		S
15	" " 5A	S		S
16	" " 6	S		X
17	" " 6A	S		X
18	" " 7	S		S
19	" " 8	S		X
20	" " 9	S		X
21	" " 10	U		X
22	" " 11	S		S
23	" " 11A	S		X
24	" " 12	S		X

2. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
25	Compartment No. 12A	S	S
26	" " 13	S	X
27	" " 14	S	X
28	" " 15	S	X
29	" " 16	S	S
30	" " 17	S	X
31	" " 18	S	X
32	" " 19	S	X
33	" " 20	S	X
34	" " 21	S	X
35	" " 22	S	X
36	" " 23	S	X
37	" " 24	S	X
38	" " 25	S	X
39	" " 26	U	U
40	" " 27	S	S
41	" " 28	S	X

Trimming Tanks -- Nos. 19, 20, 21, 24, 25, 26
 Buoyancy Tanks -- Nos. 17, 18, 22, 23, 27, 28

Ballast

Permanent: Type None Amount None Tons

Temporary: Type None Amount None Tons

Silt: Average depth: 1" to 3"

2. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	Bridge Structure		
42	Exterior	N/A	N/A
43	Interior	N/A	N/A
	Crane Runways		
44	Trusses	N/A	N/A
45	Rails	N/A	N/A
46	Wood Decking	N/A	N/A
	Connections between sections		
47	Locking Logs	N/A	N/A
48	Joints	N/A	N/A
49	Bridges	N/A	N/A
50	Stern Gate	N/A	N/A

3. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. installed</u>	<u>No. inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
51	Diesel Engines	0	0	N/A	N/A
52	Gasoline Engines	0	0	N/A	N/A
53	Boiler: Date last inspected:	0	0	N/A	N/A
	Date last tested:				
	Days idle since last inspection:				
54	Water Distillation Unit	0	0	N/A	N/A
	Refrigeration Units				
55	Walk-in	0	0	N/A	N/A
56	Reach-in	0	0	N/A	N/A
57	Air compressors	1	1	S	S
58	Oil Purifiers	0	0	N/A	N/A
59	Hydraulic Steering Equipment	0	0	N/A	N/A
60	Hydraulic Gate Operator Pumps	0	0	N/A	N/A
61	Main Dewatering Pumps	8	8	U	S
62	Fresh Water Pumps	0	0	N/A	N/A
63	Salt Water Pumps	0	0	N/A	N/A
64	Fuel Oil Pumps	0	0	N/A	N/A

3. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. installed</u>	<u>No. inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
65	Drainage Pumps	0	0	N/A	N/A
66	Vacuum Priming Pumps	4	4	S	S
67	Automatic Grease Pumps	8	8	S	S
68	Weight-Handling Equipment	0	0	N/A	N/A
	Cranes				
	Type: Gantry				
	Maker:				
	Capacity:				
	Structural				
	Electrical				
	Safety				
69	Derricks	0	0	N/A	N/A
70	Capstans	8	8	U	S
71	Deck Winches	0	0	N/A	N/A
72	Anchor Windlass	0	0	N/A	N/A
73	Elevators	0	0	N/A	N/A
74	(not used)				

4. Condition of Mechanical Installation

Item No.	Item	No. <u>installed</u>	No. <u>inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
	Generators				
75	AC	0	0	N/A	N/A
76	DC	0	0	N/A	N/A
	Motors				
77	AC	72	72	S	S
	Switchgear				
78	AC	8	8	S	S
	Panelboards				
79	AC	16	16	S	S
80	DC	0	0	N/A	N/A
81	Control Boards	2	2	S	S
	Transformers				
82	Power	0	0	N/A	N/A
83	Lighting	2	2	U	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service & Shore Service. Cableways, Wingwall Deck	20	20	S	S
86B	Welding Distribution Boxes, Wingwall Deck	20	20	S	S

5. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Blocking		
87	Fixed Blocks	S	S
88	Hauling Blocks	S	S
89	Outriggers	S	S
90	Flying Bridges	N/A	N/A
91	Anchors	N/A	N/A
92	Chain	N/A	N/A
93	Hawsers	N/A	N/A
94	Bollards	N/A	N/A
95	Cleats	S	S
96	Chocks	S	S
97	Watertight Doors	S	S
98	Hatches	S	S
99	Airports	N/A	N/A
100	Manholes and Covers	S	S
101	Stairs	S	S
102	Ladders	S	S
103	Handrails	S	U
104	Platforms	S	S
105	Gratings	S	S
106	Sidewall Jacking Equipment	N/A	N/A

5. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
Pier Moorings			
107	Spuds	S	S
108	Mooring Guides	S	S
109	Alignment between Pier and Sections	S	S
110	Draft Gages	U	S
111	Davits	N/A	N/A
112	Fenders	S	S

6. Condition of Utilities

Piping Systems			
113	Dewatering and Flooding	U	S
Valves and Valve Operators			
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	N/A	N/A
120	Flood Gates	S	S
121	Sluice Gates	N/A	N/A

6. Condition of Utilities

<u>Item No</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
122	Steam Supply System	S	S
123	Fuel Oil System	N/A	N/A
124	Lubricating Oil System	N/A	N/A
125	Fresh Water System	N/A	N/A
126	Fire Extinguishing and Flushing System	U	S
127	CO2 Fixed System	S	S Lessee-Owned
128	Sprinkler System	N/A	N/A
129	Compressed Air System	S	S
130	Air Vent System	S	S
Heating and Ventilating System			
131	Piping and Ducts	N/A	N/A
132	Ventilation and Exhaust Outlets	N/A	N/A
133	Ventilation Fans	N/A	N/A
134	Vent Valves	N/A	N/A
135	Unit Heaters	N/A	N/A
136	Unit Convectors	N/A	N/A
137	Heating Coils in Ballast Tanks	S	S
138	Range Hoods and Grease Filters	N/A	N/A
Plumbing System			
139	Piping and Fittings	N/A	N/A
140	Fixtures	N/A	N/A

6. Condition of Utilities

Item No	Item	Condition	
		Current	Previous
Lighting System			
Interior			
141	Fixtures	S	S
142	Circuits	S	S
Exterior			
143	Standards	N/A	N/A
144	Fixtures	U	U
145	Circuits	S	S
146	Searchlights	N/A	N/A (stored)
Communication System			
147	Sound Powered Telephones	N/A	
148	Dial Telephone System	N/A	N/A
149	Loud Speaker System	U	S
150	General Alarm System	U	S
Water Level and Draft Indicator System			
Type: Bristol			
151	Previous Inspection and Repair by Manufacturer: Unknown	U	S
Scheduled Date of Next Inspection by Manufacturer: None			
Miscellaneous Steel Tanks			
152	Fresh Water Supply	N/A	N/A
153	Hot Water Storage	N/A	N/A
154	Cooling Water Expansion	N/A	N/A
155	Fuel Tanks	N/A	N/A
156	Lube Oil Tanks	N/A	N/A

7. Condition of Miscellaneous Installations

<u>Item No</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
157	Brows	S	S
158	Galley and Mess Equipment	N/A	N/A
159	Clinometers	U	S
	Lifesaving Equipment		
160	Boats	N/A	N/A
161	Liferafts	N/A	N/A
162	Liferings	N/A	N/A
163	Vests	N/A	N/A
164	Cathodic Protection System	N/A	N/A

8. Drydock Basin. Soundings taken at the drydock basin on 16 November 1979. (see attachment No. 1)

9. Submergence Test. Flooded to 26 feet above 4-foot blocks in 25 minutes with 50 percent valve openings. Pumped dock to dry deck condition in 25 minutes.

10. Careening. Not applicable.

11. Maintenance and project list. None.

12. Improvements. The following improvements to the dock are recommended:
None

13. Missing Major Items

- Bilge block runners (bearlogs); 40% of the track is missing.
- Vertical ladders: all the exterior ladders on the inboard side of the port and starboard wingwalls have been removed by the lessee.
- Sheave bracket assemblies: bilge block runners at frames A, B, C, D, and E, port and starboard, have assemblies missing (10 units).

14. Auxiliary Craft: None

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of deficiencies</u>	<u>Recommendations and action to be taken</u>
9	Six stanchions on starboard side have been previously broken and improperly welded.	Remove flat bar clips and weld pipe joints properly.
10 thru 41	a. Manhole covers heavily rusted, gaskets deteriorated, drop-bolts rusted.	Blast and preserve all covers, install new gaskets, and install new drop-bolt assemblies.
	b. Port and starboard ballast compartment numbers one through 16 have scattered rust spots throughout.	Spot blast and touch-up coating system as necessary.
	c. Center line compartment numbers 17 through 28 have rust spots on overhead in way of previous welding on drydock floor.	Spot blast and touch-up coating system as necessary.
61	Coupling bolts from motors to pumps - several show indications of backing out.	Tighten bolts on all couplings.
70	Capstan motors and controllers - 8 ea.	
	a. Coils for magnetic contactors have a green oxide build-up.	Clean controllers as necessary.
	b. The forward and reversing contactor contacts are pitted.	Replace or face as necessary.
77A	Controllers for motor operated valves.	
	a. Numerous valve position indicating indicating lamps are burned out.	Install new incandescent lamps as necessary.
	b. Ballast compartment #1 flooding valve has one inch of oil in it.	Clean controller and replace oil seal.

<u>Item No.</u>	<u>Description of deficiencies</u>	<u>Recommendations and action to be taken</u>
77B	Main dewatering pump motors and controllers.	
	a. Four ea. 200 H.P. motor controllers, main contacts are badly pitted.	Replace or face as necessary.
	b. Door interlocks for controllers "A", "C", & "F" are inoperative.	Repair as necessary.
78	Main switchboards	
	a. Switchboard "A" back panel has been removed and not reinstalled.	Reinstall panel.
	b. Switchboard "B" volt meter switch has a bad detent for position # 2	Repair switch.
83	Lighting transformers 115/208 volt, single phase are leaking oil.	Check oil level of each transformer and fill as necessary.
113	Suction and discharge valve position indicators (electrical).	
	a. When valve full open, lights are lite. The valve percentage of opening indicates from 76 to 96 percent.	Repair meters and calibrate system as necessary.
	b. When valve indicators are deenergized about 10% of the meter movement swing to another position, indicating improper meter balance.	

<u>Item No.</u>	<u>Description of deficiencies</u>	<u>Recommendations and action to be taken</u>
126	5" water supply piping, port and starboard on pontoon deck split open in numerous places, valve wheels and hangers missing, valve split.	Replace piping, hangers, valve wheel, split valve.
144	Exterior lighting "B" side Fr 50 topside walkway. One incandescent fixture missing.	Replace light fixture.
149	Loud speaker system	
	a. Amplifier group #8 inoperative	Repair amplifier.
	b. Both the machinery deck and topside talk stations are inoperative.	Repair talk stations as necessary.
150	Supervisory fire alarm panel inoperative (fire alarm system operational)	Repair supervisory panel as necessary.
151 & 110	Water level and draft indicators.	
	a. Forward draft indicator inoperative.	Investigate and repair system as necessary.
	b. Water level indicators for tanks 1, 2, 4, 15, 16 read in excess of 45 feet. (remaining tanks indicate 40 feet plus one foot aft.)	

PART IV. Deficiencies Noted in Previous Reports

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective action started</u>	<u>Comments</u>
5	No	Yes	Will complete December 1980.
6A	Yes		
6B	Yes		
6C	Yes		
7A	No	Yes	Will complete December 1980.
7B	No	No	Does not meet OSHA requirements-- will not be installed.
8	No	No	Will complete December 1980.
9	Yes		
12	Yes		
14A	Yes		
20	Yes		
23	Yes		
37	Yes		
38	Yes		
55	No	Yes	Will complete December 1980.
59	Yes		
79A	No	Yes	Will complete December 1980.
79B	Yes		
81	Yes		
82A	Yes		
82C	Yes		
86	Yes		

PART IV. Deficiencies Noted in Previous Reports

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective action started</u>	<u>Comments</u>
102	No	No	Vertical ladders stored ashore.
122A	No	Yes	Will complete December 1980.
122B	No	Yes	Will complete December 1980.
126A	No	Yes	Will complete December 1980.
126B	No	Yes	Will complete December 1980.
126C	Yes		
148	Yes		
151	Yes		
159	No	Yes	Will complete December 1980.
165	Yes		

Cleanliness and Housekeeping:

Rags lying loose throughout the compartments of the drydock. Rags should be stored in suitable containers.

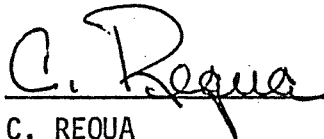
Rags will be stored in suitable containers or in an enclosed storage area.

PART V. CERTIFICATION AND SIGNATURES

This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair (SUPSHIP), USN, Seattle and representatives of the contractor.



C. W. SCHMIDT
SUPSHIP Seattle, Senior Member



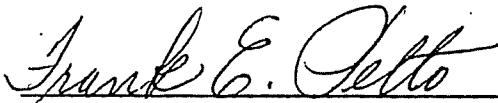
C. REQUA
Port of Portland



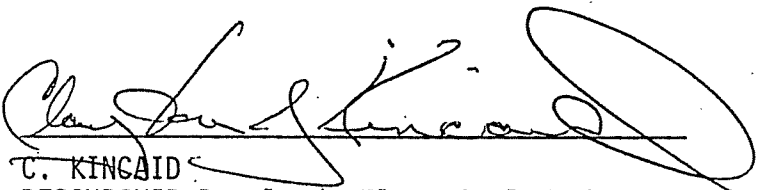
R. WRIGHT
RESSUPSHIP Portland, Hull Member



MURDOCK
Port of Portland

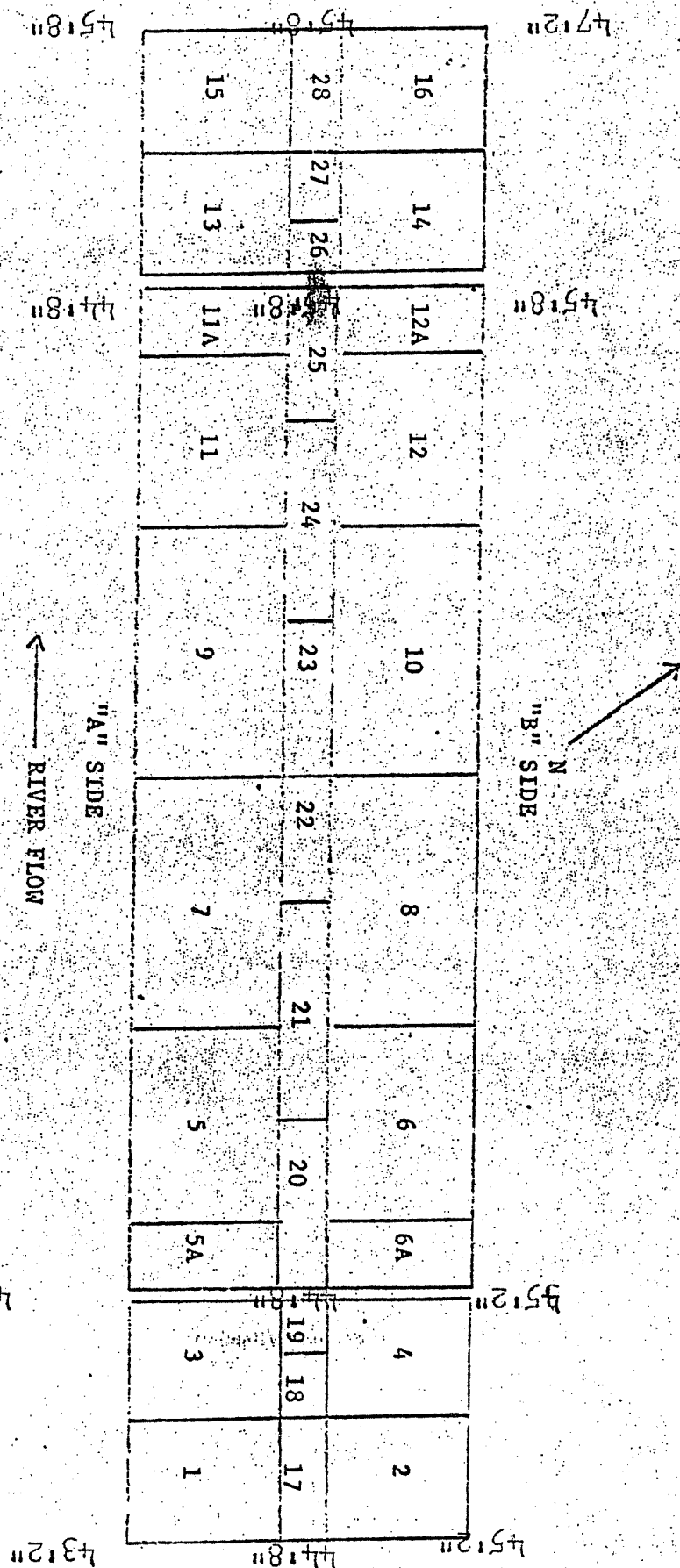


F. PELTO
RESSUPSHIP Portland, Piping Member



C. KINCAID
RESSUPSHIP Portland, Electrical Member

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69
 Basin soundings YFD.69, 11/16/79. 1000AM. River stage 2.4

INDICATOR READINGS AND ACTUAL WATER LEVEL.

HAVY DRYDOCK

OPERATOR _____
VESSEL _____
DATE Feb. 13 19 8
TIME _____

Freeboard 37" Freeboard 33"

INDICATOR READINGS
ACTUAL WATER LEVEL.

COMP. 16	COMP. 14	COMP. 12	COMP. 10	COMP. 8	COMP. 6	COMP. 4	COMP. 2
10'	9'11"	10'	10'1"	10'	10'	10'	10'
9'11"	9'11 $\frac{1}{2}$ "	10'1"	10'1 $\frac{1}{2}$ "	9'11"	10'2"	10'1 $\frac{1}{2}$ "	10'1 $\frac{1}{2}$ "

INDICATOR READINGS
ACTUAL WATER LEVEL.

COMP. 15	COMP. 13	COMP. 11	COMP. 9	COMP. 7	COMP. 5	COMP. 3	COMP. 1
10'1"	10'	10'2"	10'1"	10'	10'	10'	10'1"
10'2"	10'2 $\frac{1}{2}$ "	10'3"	10'1 $\frac{1}{2}$ "	9'11"	10'1 $\frac{1}{2}$ "	10'2"	10'2 $\frac{1}{2}$ "

INDICATOR READINGS

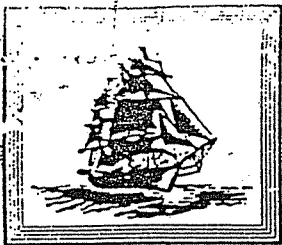
DRAFT FWD.
13'

INDICATOR READINGS

DRAFT AFT
NG.

NOTE. ALL tanks were pumped to approx. 10'. ALL tanks were sounded and gauges adjusted.

Attachment No. 2



NORTHWEST MARINE IRON WORKS

SHIP REPAIRING • GENERAL MACHINE WORK • ENGINEERING

MAIL ADDRESS: P. O. BOX 3109
PORTLAND, OREGON 97208

2516 N. W. 29TH AVENUE
TELEPHONE: 228-8221
AREA CODE 503
PORTLAND, OREGON

Condition _____ REPORT
(Condition, Closing, Service, Documentation ETC)
DATE 03/12/80 JOB NO. 1463

SHIP Drydock No. 1

SPEC. ITEM NO. _____ PARA. _____

COAAR NO. _____

Spec. Item Title _____

Attached is Ultrasonic Thickness Reading.

03/14/80 - Added Page 3.
Jmh

04/22/80 - Made corrections on page 3.
Jmh

CC: SHIPSUP (1)
Craft #11 (1)

Report No. 1463-1

Page 1 of 3

ATTACHMENT No. 3

James E. Hite
Signature of Company Representative

#11 Boilermakers
Craft and Title

J. M. Gieseler
Signature of QA Director

PSY500006080

	FR 53	FR 32	FR 15	
	.435	.440	.420	WING WALL DK
	.330	.375	.360	O.B. FACE C WING WALL
5130	FR 50	FR 33	FR 16	
	.375	.375	.375	I.B. FACE C WING WALL
	FR 53	FR 41	FR 15	
	.500	.460	.500	
4	.400	.430	.390	BASIN DK 4
	.500	.500	.590	
321	FR 51	FR 31	FR 10	
	.380	.375	.400	I.B. FACE O WING WALL
	FR 52	FR 33	FR 16	
	.595	.550	.500	O.B. FACE O WING WALL
	.440	.440	.435	WING WALL DK

Jeffrey

NORTHWEST MARINE IRON WORKS

SHIP REPAIRING • GENERAL MACHINE WORK • ENGINEERING

MAIL ADDRESS: P. O. Box 3109
PORTLAND, OREGON 97208

2515 N.W. 29th AVENUE
TELEPHONE: 223-8222
AREA CODE 503
PORTLAND, OREGON

CONDITION

(Condition, Closing, Service, Documentation ETC)

REPORT

SHIP DRYDOCK #1

DATE 3/14/80 JOB NO. 1463

SPEC. ITEM NO. _____ PARA. _____

ULTRASONIC THICKNESS

COAR NO. _____

Spec. Item Title

TANK - FR - T - PORT

C BHD -	.410	.460	.495
O.B BHD -	.415	.440	.470
FWD BHD -	.510	.520	.500
AFT BHD -	.460	.460	.460
SHELL PL -	.540	.520	.500

TANK - FR - 44 - STBD

C BHD -	.475	.480	.450
O.B BHD -	.430	.410	.430
FWD BHD -	.460	.430	.450
AFT BHD -	.450	.460	.440
SHELL PL -	.500	.510	.570

TANK - FR - 54 - STBD

C BHD -	.430	.420	.410
O.B BHD -	.415	.410	.430
FWD BHD -	.425	.410	.450
AFT BHD -	.570	.560	.550
SHELL PL -	.500	.475	.500

Clarence E. [Signature]

Signature of Company Representative

NDT TEST INSPECT

Craft and Title

Report No. 1463-1

Page 3 of 3

Signature of QA Director

PSY500006082

JOINT INVENTORY
OF
Spare Parts and Miscellaneous Equipment of the Floating Drydock YFD-69
(Lease Agreement 79-L-0003)

Consisting of 23 Pages

Compiled as of March 31, 1980

by

Norman L. Wong
Norman Wong
Res. SUPSHIP Portland

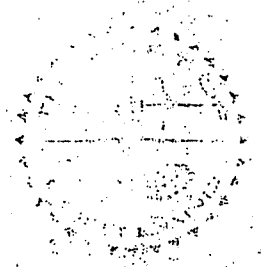
Approved: C.L. Roane
C.L. Roane, Operations Supervisor

Approved: A.K. Murdock
A.K. Murdock, Dockmaster

ENCLOSURE (2)

PSY500006083

J.A.
PLEASE FILE
W/NAVY



77 MAY 31 AM 7:38

Box 3529 Portland, Oregon 97208 (503) 224-4260

THE PORT OF PORTLAND

May 21, 1970

Mr. W. L. Seth, Facilities Officer
Assistant Industrial Manager, USN
2400 - 11th Avenue S. W.
Seattle, Washington 98134

Dear Mr. Seth:

We are enclosing the "Joint Inventory of Spare Parts and Miscellaneous Equipment of the Floating Drydock YFD-69 (Lease Agreement N000 24-70-L0010). We would appreciate it if you would sign this Inventory at the space provided on the left of the cover sheet.

After you have signed the document, we would like to receive a fully executed copy. Thank you very much.

Sincerely yours,

THE PORT OF PORTLAND

C. T. STYRON, Assistant Manager
Marine Department

Enclosure

NAVY INSPECTION
25 Feb/80

JOINT INVENTORY


of


Spare Parts and Miscellaneous Equipment of the Floating Drydock YFD-69
(Lease Agreement N000 24-70-L0010)

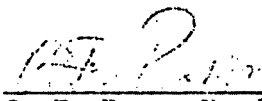
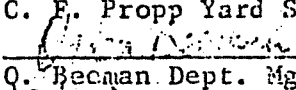
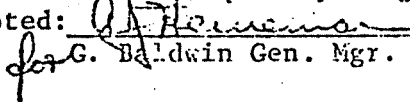
Consisting of 23 Pages

Compiled as of May 1970

by


E. W. Bauer
Assistant Secretary-Treasurer
Port of Portland


W. L. Seth
Facilities Officer
Assistant Industrial Manager, USN, Seattle

Approved: 
C. F. Propp Yard Supt.
Approved: 
O. Becman Dept. Mgr.
Noted: 
for G. Baldwin Gen. Mgr.

ENCLOSURE (1)

PSY500006085

LIST OF SPARE PARTS

Description	Amt. On Hand
<u>Communication and Fire Alarm System:</u>	
Amplifier #25, Bx #1	1
Amplifier #20, Bx #2	1
Amplifier #56041, Bx #2	1
Amplifier #34699 - Covers, Bx #2	2
Speaker BP #36, Bx #3	1 MISSING
Transformer #34693 - Power T1, Bx #3	2
Transformer #38422 - In put T2, Bx #3	2 MISSING
Transformer #35501 - Out put T3, Bx #3	2 "
Choke - Filter #35356 CH1, Bx #3	2 "
Transformer #32653 - Out put T1, Bx #3	2 "
Transformer #33026 - Power T2, Bx #3	2 "
Microphone A S 18, Bx #4	1 "
Microphone Handset, Bx #4	1 "
Tubes 6SJ7, Bx #4	4
Tubes 5U4, Bx #4	4
Tubes 6B7, Bx #4	3
Tubes 6J5, Bx #4	3
Tubes 5Y3, Bx #4	2
Tubes 6SC7, Bx #4	2
Relay Latch 1354, Bx #4	1
Relay Latch 1351, Bx #4	1
Relay Latch 1251, Bx #4	1
Relay Latch 1257, Bx #4	1
Relay Latch 1252, Bx #4	1
Relay Latch 1256, Bx #4	1
Relay Latch 1258, Bx #4	1
Relay Latch 6104, Bx #4	1
Relay Latch 1255, Bx #4	1
Switch Federal 1427, Bx #4	1
Bud Socket JL1698F, Bx #4	1
Switch LCA 1297, Bx #4	1
Edwards Break Glass Station 225M, Bx #4	1
Break Glasses, Bx #4	8
Bell Edward B2, Bx #4	1
Switch Marine Electric 212Z, Bx #4	1 MISSING
Switch Marine Electric 99Z, Bx #4	1
Terminal Strip, Jones #2-151, Bx #4	2
Terminal Strip, Jones #12-141, Bx #4	1
Capacitor, .05MF 24994 C1, Bx #4	2
Capacitor, .02MF 25150 C9(2), Bx #4	2
Capacitor, .1MF 25483 C(3), Bx #4	2
Capacitor, .05MF 26151 C(4), Bx #4	2
Capacitor, 200MF 27101 C(5), Bx #4	2
Capacitor, 20MF 27685 C(6), Bx #4	2
Magnetic Contactors W/T 250 Volt 3 Pole Lighting	1 MISSING

✓ Capacitor, .25MF 29973 C(7), Bx #4	2
✓ Capacitor, .01MF 31481 C(8), Bx #4	2
✓ Capacitor Electrolytic 32641 C(9), Bx #4	2
✓ Resistors, 1,000 OHM 28150 R(3), Bx #4	2
✓ Resistors, 100,000 OHM 28170 R(4), Bx #4	2
✓ Resistors, 220,000 OHM 28183 R(5), Bx #4	2
✓ Resistors, 470,000 OHM 28187 R(6), Bx #4	2
✓ Resistors, 33,000 OHM 31138 R(7), Bx #4	2
✓ Resistors 125 OHM 20W 35407 R(8), Bx #4	2
✓ Resistors, 10,000 OHM 20W 35413 R(8) Bx #4	2
✓ Resistors, 2500 OHM 20W 25414 R(9), Bx #4	2
✓ Switch - Power 34694 S, Bx #4	2
✓ Plug 8 Pt.- Output 32657 PL, Bx #4	2
✓ Resistors 22,000 OHM 27407 R1, Bx #4	2
✓ Resistors 100,000 OHM 28006 R2, Bx #4	2 - Missing
Resistors 220 OHM 28150 R3, Bx #4	2
✓ Resistors 1600 OHM 28160 R4, Bx #4	2
✓ Resistors 2200 OHM 28162 R(5), Bx #4	2
✓ Capacitor Electrolytic 33027 C(10), Bx #4	2 - Missing
Capacitor Electrolytic 33028 C(11), Bx #4	2
✓ Capacitor 15 MFD 450V 34697, Bx #4	2
✓ Capacitor, .1MFD 25483 C(1), Bx #4	2
✓ Capacitor .006 MFD 25533 C(2), Bx #4	2
✓ Capacitor Electrolytic 33027 C(3), Bx #4	2
✓ Capacitor Electrolytic 34697 C(4), Bx #4	2
✓ Cord & Plug AC 28652, Bx #4	2
✓ Fuse 25156, Bx #4	2
✓ Fuse Holder Location 27958 F, Bx #4	2
✓ Knob 32648, Bx #4	2
✓ Pilot Lamp Assembly 34695, Bx #4	2
Pilot Lamp Location 29956 PL, Bx #4	1 - Missing
✓ Potentiometer 35415, Rx #4	2
Restor 100,000 OHM 28006 R(1)	2 - Missing
✓ Resistors 220 OHM 28158 R(2), Bx #4	2
✓ Resistors 6800 OHM 28168 R(6), Bx #4	2
✓ Resistors 47,000 OHM 28177 R(7), Bx #4	2
✓ Resistors 220,000 OHM 28183 R(8), Bx #4	2
✓ Resistors 270,000 OHM 28184 R(9), Bx #4	2
✓ Resistors 330,000 OHM 28185 R(10), Bx #4	2
✓ Resistors 470,000 OHM 28187 R(11), Bx #4	2
✓ Resistors 1.0 MEG. 28191 R(12), Bx #4	2
✓ Resistors 10,000 OHM 30147 R(13), Bx #4	2
✓ Resistors 250 OHM 32928 R(14), Bx #4	2
✓ Resistors 2500 OHM 52929 R(15), Bx #4	2
✓ Resistors 20,000 OHM 32930 R(16), Bx #4	2
✓ Resistors 10,000 OHM 33032 R(17), Bx #4	2
✓ Marine Speaker #38 801447, Bx #6	1
✓ Oscillator 35242, Bx #5	1
✓ Marine Speaker #37-20, 803073, Bx #5	0
✓ Connector Pyle National AP210, Bx #5	1

Communication and Fire Alarm System (Cont.):

Amt.
On Hand

Connector Pyle National AP 310, Bx #5	1
Connector Pyle National AR 310, Bx #5	1
Connector Pyle National AR 610, Bx #5	1
Connector Pyle National AR 610, Bx #5	1
Connector Pyle National FNLD 2004, Bx #5	1
Connector Pyle National RNLD 2004, Bx #5	1
Connector Pyle National JR #23046, Bx #5	1
Connector Pyle National AR 210, Bx #5	1
✓ Connector Pyle National RNEJ 2000, Bx #5	1

Vertical Mixed Flow Pump 18" Impeller Assembly:

Pump Shaft Sleeves, 88-8-4Z Upper No. 16	1
Pump Shaft Sleeves, 8808-4Z Brz. Lower No. 17	1
4/2 Cl Babbitt Shell Bearings AT Pump #34701BB No. 19	2
4/2 Cl Babbitt Shell Bearing Hub-Disc #34809BB No. 11	2
Bearing Seals Garlock #2392 #20	4
Water Seal Rings, 88-84Z #32402W No. 12	2
Graphite Packing 8' x 1" Sq. No. 45	4
Impeller Keys 11/16" Steel No. 54	2
Impeller Nuts 88-84Z #32046N No. 8	2
Coupling Nuts RH C5 No. 37	1
Coupling Nuts LH CS No. 37	1
Coupling Keys 11/16" Steel No. 55	2
Set Screws for Impeller Shaft Coupling 1/2 X 1" Brs 50	2
Impeller Shaft Sleeve (upper)	1
Impeller Shaft Sleeve (lower)	1

MISSING

Vertical Mixed Pump 18" Intermediate Shaft Assembly:

Bearing Seals Garlock #2392	8
Coupling Lock Screws 1/2 x 1" Brs. No. 50	8
Rigid Coupling Locknuts CS RH No. 37	2
Rigid Coupling Locknuts CS LH No. 37	2
Coupling Keys Stl 11/16" No. 56	4

MISSING

Vertical Mixed Flow Pump Assembly 18" Pump Motor Base Assembly:

Graphite Packing 8' x 1" Sq. No. 46	4
-------------------------------------	---

MISSING

Vertical Mixed Flow Pump 30" Impeller Assembly:

Pump Shaft Sleeve 88-84Z Upper #34814N No. 16	1
Pump Shaft Sleeve Brz 88-8-4Z #32502N Lower No. 17	1
4/2 Cl Babbitt Shell Bearing AT Pump #34790BB No. 19	2
Retainer Pins Brz 3/4 x 2-1/4" No. 48	8
Lock Washers 3/4" Steel Cad. Bltd. No. 49	8
4/2 Cl Babbitt Shell Bearing Hub-Disc #34789BB No. 11	2
Bearing Seals AT Pump Garlock #2951 No. 20	4

MISSING

Vertical Mixed Flow Pump 30" Impeller Assembly (Cont.):

Amt.
On Hand

Water Seal Rings 88-8-4Z Brz #52194N No. 12
Graphite Packing 10'6" x 1" sq. No. 45
Impeller Shaft Sleeve (upper)
Impeller Shaft Sleeve (lower)
Impeller Nuts Brz. 88-8-4Z No. 8
Impeller Keys Brz 1 x 1 x 6" No. 54
Coupling Keys Brz 1 x 1 x 6" No. 55

2
4
1
1
2
2
2
MISSING
MISSING

Vertical Mixed Flow Pumps Intermediate Shaft Assembly (30"):

Bearing Seal AT Pump Garlock #2951 No. 20
Coupling Nuts CS RH #32499N No. 37
Coupling Nuts CS LH #32499N No. 37
Coupling Keys 1 x 1 x 6" Brz. No. 55

8
2
2
4

Vertical Mixed Flow Pumps 30" Motor Base Assembly:

Graphite Packing Motor Base 6' x 1" sq. No. 46

4

Valve Control Board (Benches):

"HA" Valve Position Indicator w/282* Scale Arc
Resistors for 282* Position Indicator (3 per set)
"HA" Valve Position Indicator w/308* Scale Arc
Resistors for 306* Position Indicator (3 per set)

1
2
1
2

Identification Tags for Operators and Starters for 18" - 20" - 30" Valves:

Pilot Light Bulb Tag #28-81
Overload Heater Relay Tags #34-361-18
Operating Coil Tags #9-464-1
Movable Contact Tags #4221-4
Stationary Contact #21-368
Movable Contact Spring #69-670
Yoke Springs #969-473
Lever Spring Tags #69-534
Main Lever Spring #69-670

20
3
3
3
3
3
3
3
3

Vacuum Pump Starters:

Stationary Contact Tips Sym 4422 #5373245-G2
Movable Contact Tips Sym 4422 #5303307-G1
Stationary Contact Tips Sym 4422 #5373245-G1
Movable Contact Tips Sym 4422 #5373245-G3

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43
8
8
MISSING
MISSING

Vacuum Pump Starters (Cont.):Amt.
On Hand

✓ Stationary Contact Tips Sym 4422 #5197821-G1	8
✓ Coil #22D72G113 Sym 4422	1
✓ Coil #22D82G193 Sym 4422	1

Bristol Water Level Indicator System:

✓ Draft Bulb w/1" Pipe Thread	1
✓ Water Level Bulb Brz	1

Spares for Lighting Fixtures:

✓ Single Gang Switch Interior 10 Amp 1 Pole	2
✓ Switch 2 Gang w/T 10 Amp 250V RSS 627	1

Lubricating Pump Motor Starters:

✓ Coil S#1115656	1
✓ Stationary Contacts S#899826	8
✓ Moving Contact S#1116634	4

Main Switchboard Parts:

✓ Metal Spare Parts Box	1
Non Latching Pole Unit #1196298 consisting of :	1
✓ 1 - Stat. Arc. Platform Item 1, S#1170609	
✓ 2 - Stop Brackets, S #1067799	
✓ 1 - Spring S #1152493	
✓ 1 - Shunt Clip, S#1197340	
✓ 2 - Springs, S #1216407	
✓ 1 - Insulation Tube, S#109924	
✓ 1 - Pin. S#1128417	
✓ 1 - Clip, S#1091983	
✓ 1 - Spring Guard, S#1128416	
✓ 1 - Bag of Hardware	
✓ Non Latching Pole Unit SO#2-Y-2427, Item 2 S#1176853-E	1
✓ Non Latching Pole Unit SO#2-Y-2426, Item 2A S#1176853-E	1
✓ Non Latching Pole Unit SO#2Y-2428, Item 2B S#1176853-E	1
✓ Non Latching Pole Unit SO#2425, Item 2C S#1176853-E	1
✓ Each of the above Items 2, 2A, 2B & 2C consist of;	
✓ 1 - Frame Item 19 S#1227364	
✓ 1 - Toggle Lever Item 25 S#1170346	
✓ 1 - Pin Item 26 S#885536	
✓ 1 - Shunt Clip Item 29 S#1128124	
✓ 2 - Trip Lever Item 35 S#1152272	
✓ 1 - Pin Item 36 S#885536	
✓ 1 - Pin Item 39 S#885574	
✓ 1 - Shunt Item 41 S#1128101	
✓ 2 - Clips Item 42 S#1091983	
✓ 2 - Insulated Cups Item 44 S#1091984	
✓ 1 - Baffle Item 47 S#1313806	
✓ 1 - Spring Base Item 52 S#1291041	
✓ 1 - Spring Guard Item 56 S#1128098	
✓ 2 - Stop Brackets Item 58 S#1128099	

Items 2, 2A, 2B & 2C consist of : (Cont.):

Amt.
On Hand

- ✓ 2 - Locking Clips Item 60 S#1186770
- ✓ 1 - Baffle Item 61
- ✓ 2 - Springs Item 68 S#1176795
- ✓ 1 - Pin Item 69 S#1128103
- ✓ 1 - Moving Arcing Contact Item 72 S#1152246
- ✓ 1 - Stationary Arcing Contact Item 1 S#1251755
- ✓ 1 - Spring Item 74 S#1152250
- ✓ 3 - Arcing Contact Item 3 S#1170609
- ✓ 3 - Upper Studs Item 3A S#1198600
- ✓ 3 - Arcing Contacts Item 4 S#1251755
- ✓ 3 - Upper Studs Item 4A S#1176782

Metal Spare Parts Box

- Lower Studs Item 3B S#1198615
- Lower Studs Item 4B S#1176791
- Lower Studs Item 4C S#1176787
- Metal Spare Parts Box #94119
- Arcing Contact Item 5 S#1251755
- Upper Studs Item 5A S#1152281
- Lower Studs Item 5B S#1176870
- Lower Studs Item 5C S#1152293
- Arcing Contact Item 6 S#1251755
- Upper Contact Item 6A S#1152281
- Lower Studs Item 6B S#1176868
- Lower Stud Item 6C S#1152295

Main Contacts Item 7 S#1242752

- ✓ Arcing Contacts Item 7A S#1152491
- ✓ Arcing Contacts Item 8 S#1152246
- ✓ Main Contact, LH Item 8A S#1152316
- ✓ Main Contact, RH Item 8B S#1152317
- ✓ Arcing Contact Item 9 S#1152246
- ✓ Main Contacts Item 9A S#1251473
- ✓ Arcing Contacts Item 10 S#1152246
- ✓ Main Contacts Item 10A S#1251478

Metal Spare Parts Box #94120

- ✓ Arcing Chambers Item 11 S#1152675
- ✓ Arcing Chambers Item 12 S#1176854
- ✓ Cartridge Fuses Item 13 S#37187A
- ✓ Lamps, 15 Watt 120 Volt S#290305 Item 15

Set of Springs Consisting of:

- ✓ 3 - Contact Springs Item 16A S#1152493
- ✓ 6 - Shunt Springs Item 16B S#1216407
- ✓ 6 - Accel. Springs Item 16C S#1170616
- ✓ 3 - Trigger Springs Item 16D S#1170619
- ✓ 3 - Latch Springs Item 16E S#1170619
- ✓ 3 - Pawl Springs Item 16F S#1152498
- ✓ 3 - Air Bumper Spring Item 16G S#1308921
- ✓ 6 - Mov. Contact Arm Back Springs Item 16H S#1170614
- ✓ 6 - Main Contact Spring Item 16I S#1152315

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Missing

Amt.
On Hand
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Set of Springs Cons. ng of:

- 13 - Contact Springs Item 17A S#1152250
- 16 - Shunt Springs Item 17B S#1176795
- 13 - Trip Lever Springs Item 17C S#1128105
- 6 - Accel. Springs Item 17D S#1128079
- 2 Pawl Springs Item 17E S#1128104
- 3 - Main Contacts Item 17F S#1152315
- 2 - Trigger Springs Item 17G S#1152247
- 2 - Latch Springs Item 17H S#833505
- 1 - Pos. Ind. Springs Item 17I S#1152512

Capstan Controller:

- ✓Contacts #321-841 26
- ✓Contacts #740-22 20
- ✓Reset Assemblies #10-880 2
- ✓Studs #914-442AZ 2
- ✓Brake Assembly 1/10 HP 440V, 60 Cyc. 3Ph. #6937004-D12 1
- ✓Hand Wheel #2832734 1

Controller:

- ✓Finger #640-109 1
- ✓Stationary Contacts #21310 4
- ✓Movable Contacts #21-308 2
- ✓Stationary Contact #21-314 2
- ✓Movable Contacts #21-413 1
- ✓Movable Contact #69-666 1
- ✓Movable Contact #40-139-2 1
- ✓Stationary Contact #40-138 1

Main Pump Starters: *

- Transformer 100 HP 440/220=300-350V 3 Ph #236978 1 - *MISSING*
- Heaters for 200 HP #967191 2
- Coil for Contactor 65F-5 #822155 1
- Coil for Contactor DN-430-P #966752 1
- Coil for Contactor DN-450 #919995 1
- Coil for Contactor DN-12 #968339 1
- Coil for Relay DN-100 #1186539 2
- Moving Contact w/Shunt for Contactor 65F-5 #1292998 3
- Stationary Contacts for Contactor 65F-5 #1292338 3
- Moving Contact w/Shunt for Contactor DN-430-P #884568 3
- Stationary Contact for Contactor DN-430-P #884596 3
- Moving Contacts w/Shunt for Contactor DN-450 #884595 3
- Stationary Contacts for Contactor DN-450 #884596 5
- Indicating Lamps for Push Button Station #822314 4
- Green Lens for Push Button Station #43969 1
- Red Lens for Push Button Station #549468 1
- Magnetic Contactor WT 250V 3 Pole for Lighting 0
- Timing Relay, Type TK 0

Miscellaneous Electrical Parts:

Amt.
On Hand

Switch Int. 1 Pole Sgle Gang-10A Sym 4013-2
 Switch 2 Gang W/T 250V 10A R&S 627 Sym 4014-2
 Lighting Fixtures 150W Angular W/P W/Mounting Sym 4027
 Lamps for Dial Lights 6V Sym 4107
 Lamps Pilot for Indicating Light 170A Sym 4108
 Fuses, Cartridge 250V 6A Sym 4109
 Fuses, Cartridge 250V 10A Sym 4110
 Fuses, Cartridge 600V 3A Sym 4111
 Fuse Tongs for 30A Cartridge Fuses Sym 4108
 Push Button Units #1032888
 Fuses 15A #37162
 Air Circuit Breaker, Complete 3 Pole 70A 600 Sym 4405
 Lighting Fixture 25W w/Ruby Globe & Guard Sym 4025
 Ruby Red Globes Sym 4025
 Lighting Fixtures V/T 100W w/clear Globe & Guard Sym 4023
 Lighting Fixture V/T 100W w/Clear Globe & Globe & Guard Sym 4024
 Clear Globe Sym 4023
 Outlets, Submersible 20A 120V 3 Pole 2 Wire Sym 4037
 De-Ton Breaker w/5#1310849 Frame 200A 600V 3 Pole S#1310884
 Tripping Unit 200A 5 Term. #806993
 Receptacle, Submersible 400A 480V 3 Pole Sym 4408-09
 Receptable, Submersible 200A 480V 4 Pole Sym 4406-07
 Wrenches 3/16" Allen Set Screw
 Wrenches 1" Straightway Plug Valves
 Wrenches 4" Lubricated Plug Valve #803
 Wrenches for 1797-F Lubricated Plug Cook Valves
 Wrenches for 2" Lubricating Plug Valves
 Floodlight w/P 1000W w/Widespread Lens Sym 4026
 Expansion Joints 4" Copper Packless #79050
 Expansion Joints 4" Copper Packless #1
 Expansion Joints 5" Copper Packless #5
 Pilot Light Bulbs #28-81
 Overload Heater Relay #84-361
 Operating Coils #9-464-1
 Contacts - 12 per Set - #4221-4
 Contacts - 24 per Set - 21-386
 Springs - 12 per set - 69-194
 Springs - 3 per set - 969-473
 Springs - 1 per set -69-534
 Springs - 1 per set - 69-670
 Red Globes Sym 4046 for use on Sym 4075
 Red Globes Sym 4047 for use on Sym 4043
 Clear Globes (Benj.) Sym 4044 for use on Sym 4023
 Clear Globes (Benj.) Sym 4045 for use on Sym 4024
 Oak Guide Block 4 x 8 x 3 1/2" w/2-1/8" Dia. Shaft Hole
 Wrenches for 2" Lubricated Plug Valves #802
 Draftmen's Stool
 30" Handwheel for Valve
 Chain and Spring for Counter Balanced Stairs
 Alemite Industrial Button Head Fittings for Carriages

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Control Board in Control House:

Amt.
On Hand

✓ Synchro Tie Motor "ADS" - Transmitters #1099231-C-6	1
✓ #46 Lamps for Instrument Dial Lights	12
✓ Push Button Units, Type HD	4
✓ Lamp Receptacles, Type HD	4
✓ Fuses, N R 6A 250V	44
✓ Fuses, NR 10A 250V	58
✓ Lens, Red	6
✓ Lens, Green	10
✓ Lens, Opalescent	2

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Capstan Spares Box #15</u>	
✓ Contacts, Cutler-Hammer #1321-841 Box 15	26
✓ Contacts, Cutler-Hammer #740-22 Box 15	20
✓ Contact Studs, Cutler-Hammer #914-442AZ Box 15	2
✓ Contact Finger, Cutler-Hammer #10-880 Box 15	2
✓ No. Stationary Contact, Cutler-Hammer #21-310 Box 15	4
✓ No. Moving Contact, Cutler-Hammer #21-308 Box 15	2
✓ No. Stationary Contact, Cutler-Hammer #21-314 Box 15	2
✓ No. Movable Contact, Cutler-Hammer #21-413 Box 15	1
✓ Movable Contact, Cutler-Hammer #69-666 Box 15	1
✓ Movable Contact, Cutler-Hammer #40-139-2 Box 15	1
✓ Stationary Contact, Cutler-Hammer #40-138 Box 15	1
✓ Capstan Brake Spares	
Brake Assembly, 1/10 H.P. 440 Volts, 60 Cycles	1 - Missing
3 Phase, General Elect. #6937004-D12	1 - Missing
Hand Wheel, General Electric #2832734	1 - Missing
Contact Finger #640-109	
<u>Electrical System - Control Board in Control House Box #4</u>	
✓ Fuses, 6A, 250V NRC NR W'HOUSE 37158 Box 4	4
✓ Lamp, Mazda #46 for Dial Lights W'HOUSE #1001663	24
✓ Syncaro Tie Motor C-6 Type ADS Box 4	1
✓ Pushbutton Units, Type HD W'HOUSE Box 4	4
✓ Lamp Receptacle, Type HD W'HOUSE Box 4	4
✓ Lamps for Indicating Lights W'HOUSE Box 4	24
✓ Red Lens for Indicating Lights W'HOUSE Box 4	12
✓ Green Lens for Indicating Lights W'HOUSE Box 4	12
✓ Opalescent Lens for Indicating Lights W'HOUSE Box 4	2
<u>Main Switchboard Box #4</u>	
Resistor Vithrohm 5000 OHM 50W W'HOUSE 71065 Box 4	2
Main Switchboard Spares:	
Metal Spare Parts Box	1
Non Latching Pole Unit, as follows, Westinghouse	
Elec. & Mfg. Co. #1196298	
Mech. Assembly, Dwg. 7-A-6238 consisting of:	1
Stat, Arc. Platform, Item 1 S#1170609 W.E. & M. Co.	1
Stop Bracket S#1067799, West. Elec. & Mfg. Co.	2
Spring, S#1152493, Westinghouse Elec. & Mfg. Co.	1
Shunt Clip, Westinghouse Elec. & Mfg. Co. S#1197340	1
Springs, Westinghouse Elec. & Mfg. Co. #1216407	2
Insulation Tube, West. Elec. & Mfg. Co. #109984	1
Pin, Westinghouse Elec. & Mfg. Co. #1128417	1
Clip, Westinghouse Elec. & Mfg. Co. S#1091983	1
Spring Guard, West. Elec. & Mfg. Co. #1128416	1
Bag of Hardware, West. Elec. & Mfg. Co.	1
Non Latching Pole Unit S.O. #2-Y-2427, West. Elec.	
& Mfg. Item 2 S#1176853-E	1
Metal Spare Parts Boxes	4
Non Latching Pole Unit, S.O. #2-Y-2426, West. Elec. & Mfg. Co.1	
Item 2A S#1176853-E	

<u>Description</u>	<u>Amt. On Hand</u>
<u>Main Switchboard (Cont.)</u>	
Main Switchboard Spares: Cont.	
Non Latching Pole Unit S.O. #2-Y-2428, West. Elec.	1
& Mfg. Co. Item 2B S#1176853-E	
Non Latching Pole Unit S.O. #2-2425, West. Elec.	1
& Mfg. Co. Item 2C S#1176853-E	
Each of the above items (2, 2A, 2B and 2C) consist of:	
Frame Item 19, W.E. & M. Co. S#1227364	1
Toggle Lever, Item 25, W. E. & M. Co., S#1170346	1
Pin, Item 26, W. E. & M. Co. S#885536	1
Shunt Clip, Item #29, W. E. & M. Co. S#1128124	1
Trip Lever, Item #35, W.E. & M. Co. S#1152272	1
Pin, Item #36, W.E. & M. Co. S#885536	1
Pin, Item #39, W. E. & M. Co. S#885574	1
Shunt, Item #41, W.E. & M. Co. S#1128101	1
Clips, Item #42, W.E. & M. Co. S#1091983	2
Insulated Cup, Item #44, W.E. & M. Co. S#1091984	2
Baffle, Item #47, W.E. & M. Co. S#1313806	1
Spring Base, Item #52, W. E. & M. Co. S#1291041	1
Spring Guard, Item #56, W. E. & M. Co. S#1128098	1
Stop Bracket, Item #58, W. E. & M. Co. S#1128099	2
Locking Clip, Item #60, W. E. & M. Co. S#1185770	2
Baffle, Item #61, W. E. & M. Co.	1
Springs, Item #68, W. E. & M. Co. S#1176795	2
Pin, Item #69, W. E. & M. Co. S#1128103	1
Moving Arcing Contact, Item #72, W. E. & M. Co. S#1152246	1
Stationary Arcing Contact, Item #72, West Elec. & Mfg. Co. S#1251755	1
Spring Item #74, W. E. & M. Co. S#1152250	1
Arc. Contact, Item #3, W. E. & M. Co. S#1170609	3
Upper Studs, Item 3A, W. E. & M. Co. S#1198600	3
Arc. Contacts, Item #4, W. E. & M. Co. S#1251755	3
Upper Studs, Item 4A, W. E. & M. Co. S#1176782	3
Metal Spare Parts Box, W. E. & M. Co.	1
Lower Studs, Item #3B, W. E. & M. Co. S#1198615	3
Lower Studs, Item #4B, W. E. & M. Co. S#1176791	2
Lower Studs, Item 4C, W. E. & M. S#1176787	1
Metal Spare Parts Box, W. E. & M. Co. #94111	1
Arc. Contacts, Item #5, W. E. & M. Co. S#1251755	6
Upper Studs, Item #5A, W. E. & M. Co. S#1152281	6
Lower Studs, Item #5B, W. E. & M. Co. S#1176870	4
Lower Studs, Item #5C, W. E. & M. Co. S#1152293	2
Arc. Contacts, Item #6, W. E. * M. Co. S#1251755	3
Upper Contacts, Item #6A, W. E. & M. Co. S#1152281	3
Lower Studs, Item #6B, W. E. & M. Co. S#1176868	2
Lower Studs, Item #6C, W. E. & M. Co. S#1152293	1
Main Contacts, Item #7, W. E. & M. Co. S#1242752	6
Arc. Contacts, Item #7A, W. E. & M. Co. S#1152491	3
Arc. Contacts, Item #8, W. E. & M. Co. S#1152246	3
Main Contact, L. H. Item #8A, W.E. & M. Co. S#1152316	3

Main Switchboard (Cont.)

<u>Description</u>	<u>Amt. On Hand</u>
✓ <u>Main Switchboard Spares: Cont.</u>	
Main Contacts, R. H. Item #8B, W.E. & M. Co. #1152317	3
Arc. Contacts, Item #9, W.E. & M. Co. S#1152246	6
Main Contact, Item #9A, W.E. & M. Co. S#1251478	6
Arc. Contact, Item #10, W.E. & M. Co. S#1152246	3
Main Contacts, Item #10A, W.E. & M. Co. S#1251478	3
Metal Spare Parts Box, West. Elec. & Mfg. Co. #94113	1
Arc. Chambers, Item #11, W.E. & M. Co. S#1152675	1
Arc. Chambers, Item #12, W.E. & M. Co. S#1176854	1
Cartridge Fuses, Item #13, W.E. & M. Co. S#37187A	6
Lamps, 15 W, 120 V, Item #15, W.E. & M. Co. S#290305	6
Set of Springs Consisting of: Item #16	
Contact Springs Item #16A, W.E. & M. Co. S#1152493	3
Shunt Springs, Item #16B, W.E. & M. Co. S#1216407	6
Accel. Springs, Item #16C, W.E. & M. Co. S#1170616	6
Trigger Springs, Item #16D, W.E. & M. Co. S#1170619	3
Latch Springs, Item #16E, W.E. & M. Co. S#1170619	3
Pawl Spring, Item #16F, W.E. & M. Co. S#1152498	3
Air Pumper Springs, Item #16G, W.E. & M. Co. S#1308921	3
Mov. Contact Arm. Back Springs, Item #16H, W.E. & M. Co. S#1170614	6
Main Contact Springs, Item #16I, W.E. & M. Co. S#1152315	6
1 set of Springs consisting of: (Item #17)	
Contact Springs, Item #17A, W.E. & M. Co. S#1152250	3
Shunt Springs, Item #17B, W.E. & M. Co. S#1176795	6
Trip Lever Springs, Item #17C, W.E. & M. Co. S#1128105	3
Accel. Springs, Item #17D, W.E. & M. Co. S#1128079	6
Pawl Springs, Item #17E, W. E. & M. Co. S#1128104	2
Main Contacts, Item #17F, W. E. & M. Co. S#1152315	3
Trigger Springs, Item #17G, W. E. & M. Co. S#1152247	2
Latch Springs, Item #17H, W.E. & M.Co. S#833505	2
Pos. Ind. Springs, Item #17I, W.E. & M. Co. S#1152512	1
<u>Air Circuit Breaker for Welding Outlets Box #4</u>	
✓ Air Circuit Breaker 200A, 600V, 3 Pole #1310884, Box 4	1
Tripping Unit, 200A, 6 Terminal S#807309 Box 4	1
Fuses, 10A, 250V, Non-Ren. Box 4	58
✓ <u>Power Circuits Box #7</u>	
Air Circuit Breaker 70A, 600V, 3 Pole 59349, Box 7	1
<u>Main Pump Starters Box #3</u>	
✓ Timing Relay, Type TK#59650, Box 3	1
✓ Extra Relay	1
✓ <u>Lubricating Motor Starter, Box #7</u>	
Moving Contacts, Box 7, Part "B"	4

DescriptionLubricating Motor Starter Box #7 (Cont.)

Stationary Contacts Box #7	8
Operating Coil Box #7	1

✓ Main Pump Motor Starter, Box #16

Auto Transformer 200 H.P. 440/220-300-350V 3 Ph. #236978	2
Auto Transformer 100 H.P. 440/220-300-350V 3 Ph. #236978	1
Heater for 200 H.P. Starter #967191 Box 16	2
Coil for Contactor 65-F-5 #822155 Box #16	1
Coil for Contactor DN-430 B #966752 Box #16	1
Coil for Contactor DN-450 #919995 Box #16	1
Coil for Contactor Dn-120 #968339 Box #16	1
Coil for Relay DN-100 #1186539 Box #16	2
Moving Contact W/Shunt for Con. 65F-5 1292998 Box #16	3
Stationary Contacts for Con. DN-430-P#884596 Box #16	3
Indicating Lamps for Pushbutton Station #822314 Box #16	4
Green Lens for Pushbutton Station #549469 Box #16	1
Red Lens for Pushbutton Station #549468 Box #16	1

✓ Vacuum Pump Starters Box #5

Stationary Contact Tips #5373245-G2 Box #5	8
Stationary Contact Tips #5373245-G1 Box #5	8
Stationary Contact Tips #5197821-G1 Box #5	8
Stationary Contact Tips #5373245-G3 Box #5	8
Stationary Contact Tips #5303307-G1 Box #5	4
Operating Coil #22DB2G193 Box #5	1
Operating Coil #22D7G113 Box #5	1

Submersible Receptacle & Plug 400A, 600 V, 3 Pole Box #9	1
Submersible Receptacle & Plug 200A, 600 V, 4 Pole Box #9	1
Submersible Outlet W/covers 20A, 600 V, 3 Pole, 2 Wire Box #9	2

✓ Miscellaneous Electrical Equipment Box #2

Lighting Fixtures 100 W. Bracket MTD Box #2	1
Lighting Fixtures 100 W. Ceiling MTD Box #2	4
Clear Globes 100 W for V/T Lighting Fixtures Box #2	7
Lighting Fixtures 25 W V/T with Red Globes Box #4	2
Red Globes for 25 W Lighting Fixtures Box #4	3
Lighting Fixtures 150 W W/P Angular Box #8	2
Mounting Bracket for Angular Lighting Fixture Box #8	2
Floodlighting Fixtures W/Widespread Lens 2BX6	2

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Miscellaneous Electrical Equipment Box #2 (Cont.)</u>	
✓ Magnetic Switch W/T 35A, 250V, 3 Pole Box #14 Part 2B	1
<u>Communications and Fire Alarm System Box #12 (5 pts)</u>	
✓ Speaker 36 BP Box 12 (3)	1
✓ Speaker 37-20 Box 12 (5)	1
✓ Speaker 38 Box 12 (5)	1
✓ Amplifier 25 Box 12 (1)	1
✓ Amplifier 56041 Box 12 (2)	1
✓ Microphone Handset Box 12 (4)	1
✓ Microphone 18AS Box 12 (4)	1
✓ Tube 6SJ7 Box 12 (4)	6
✓ Tubes 6L6 Box 12 (4)	2
✓ Tubes 5U4 Box 12 (4)	4
✓ Tubes 6N7 Box 12 (4)	3
✓ Tubes 6J5 Box 12 (4)	3
✓ Tubes 5Y3 Box 12 (4)	2
✓ Tubes 6SC7 Box 12 (4)	2
✓ Oscillator 35242 Box 12 (5)	1 - Missing
✓ Relay Latch 1354 Box 12 (4)	1
✓ Relay Latch 1351 Box 12 (4)	1
✓ Relay Latch 1251 Box 12 (4)	1
✓ Relay Latch 1257 Box 12 (4)	1
✓ Relay Latch 1252 Box 12 (4)	1
✓ Relay Latch 1256 Box 12 (4)	1
✓ Relay Latch 6104 Box 12 (4)	1
✓ Relay Latch 1255 Box 12 (4)	1
✓ Relay Latch 1258 Box 12 (4)	1
✓ Connectors, Pyle National JR23Q46CF (5)	1
✓ Connectors, Pyle National RNEJ 2000 Box 12 (5)	1
✓ Connectors, Pyle National AP310 Box 12 (5)	1
✓ Connectors, Pyle National AR610, Box 12 (5)	1
✓ Connectors, Pyle National PNLD2004 Box 12 (5)	1
✓ Connectors, Pyle National AR310 Box 12 (5)	1
✓ Connectors, Pyle National AR210 Box 12 (5)	1
✓ Switch, Federal Box 12 (4)	1
✓ Socket, Bud JL1698F Box 12 (4) #1427	1
✓ Switch 1297 Box 12 (4)	1
✓ Station Break Glass 225M Box 12 (4)	1
✓ Glasses, Break Box 12 (4) #225	8
✓ Bell, Edwards, B2 Box 12 (4) Part 2B2	1
✓ Switch, Marine Electric 212Z Box 12 (4)	1
✓ Switch, Marine Electric 99Z Box 12 (4)	1
✓ Connectors, Pyle National AP610	1
✓ Amplifier 20 Box 12 (2)	1

Description	Amt. On Hand
<u>Communications and Fire Alarm System Box #12 (5 Pts) (Cont.)</u>	
Connectors, Pyle National PNLD 2004	1
Metal Spare Parts Boxes	5
Strip, Terminal Jones 2-151 Box 12 (4)	1
Strip, Terminal Jones 12-141 Box 12 (4)	1
Capacitor, .05MF 24994 Box 12 (4)	2
Capacitor, .02MF 25150 Box 12 (4)	2
Capacitor, .1MF 25483 Box 12 (4)	2
Capacitor, .005MF 26151 Box 12 (4)	2
Capacitor, 200MF 27101 Box 12 (4)	2
Capacitor, 20MF 27685 Box 12 (4)	2
Capacitor, .25MF 29973 Box 12 (4)	2
Capacitor, .01MF 31481 Box 12 (4)	2
Capacitor, Electrolytic 32641 Box 12 (4)	2
Capacitor, Electrolytic 33027 Box 12 (4) (C-10)	2
Capacitor, Electrolytic 33028 Box 12 (4)	2
Capacitor, 15MF 450V 34697 Box 12 (4)	2
Capacitor, .006MF 25533 Box 12 (4)	2
Capacitor, Electrolytic 33027 Box 12 (4) (C-3)	2
Choke, Filter 35356 Box 12 (4)	2
Cord & Plug AC 28652 Box 12 (4)	2
Cover (Bottom) 34699 Box 12 (4)	2
Fuses 25156 Box 12 (4)	2
Holder, Fuse 27958 Box 12 (4)	2
Knob 32648 Box 12 (4)	2
Assembly Pilot Lamp 34695 Box 12 (4)	2
Lamp, Pilot 29956 Box 12 (4)	2
Potentiometer 35415 Box 12 (4)	2
Resistor 100,000 OHM 28006 Box 12 (4)	2
Resistor 220 OHM 28153 Box 12 (4)	2
Resistor 1000 OHM 28150 Box 12 (4)	2
Resistor 100,000 OHM 28170 Box 12 (4)	2
Resistor 220,000 OHM 28183 Box 12 (4)	2
Resistor 470,000 OHM 28187 Box 12 (4)	2
Resistor 33,000 OHM 31138 Box 12 (4)	2
Resistor 125 OHM 20 W 35407 Box 12 (4)	2
Resistor 10,000 OHM 20W 25413 Box 12 (4)	2
Resistor 2,500 OHM 20W 25414 Box 12 (4)	2
Switch, Power 34694 Box 12 (4)	2
Transformer, Power T-1 34693 Box 12 (3)	2
Transformer, Input T-2 35422 Box 12 (3)	2
Transformer, Output T-3 35501 Box 12 (3)	2
Plug Spt. Output 32657 Box 12 (4)	2
Resistor, 22,000 OHM R(1) 27407 Box 12 (4)	2
Resistor, 100,000 OHM R(2) 28006 Box 12 (4)	2
Resistor, 220,000 OHM R(3) 28150 Box 12 (4)	2
Resistor, 1500 OHM R(4) 28160 Box 12 (4)	2
Resistor, 2200 OHM R(6) 28162 Box 12 (4)	2
Resistor, 47,000 OHM 28177 Box 12 (4)	2
Resistor, 220,000 OHM 28183 Box 12 (4)	2
Resistor, 270,000 OHM 28184 Box 12 (4)	2

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Communications and Fire Alarm System Box #12 (5 pts.) (Cont.)</u>	
Resistor 330,000 OHM 28185 Box 12 (4)	2
Resistor 470,000 28187 Box 12 (4)	2
Resistor 1. OMEG R(12) 28191 Box 12 (4)	2
Resistor 10,000 OHM R(13) 30417 Box 12 (4)	2
Resistor 250 OHM R(14) 32928 Box 12 (4)	2
Resistor 2500 OHM R(15) 32929 Box 12 (4)	2
Resistor 2000 OHM R(16) 32930 Box 12 (4)	2
Resistor 10,000 OHM R(17) 33032 Box 12 (4)	2
Transformer, Output T-11 32653 Box 12 (3)	2
Transformer, Power T-2 33026 Box 12 (3)	2
<u>30" Vertical Mixed Flow Pump</u>	
Bearing Sleeves, Upper 34814N Box 13	2 e
Bearing Shaft Sleeves, Lower 32502N Box 13	2 e
Shell Bearings at Pump 4/2 Babbitted C.I. 34790RE Box 13	2 e
Shell Bearings at Hub Disc. 4/2 Ba Babbitted C.I. 34789AB	2 e
Bearing Seals at Pump, Garlock 2941 Box 13	4 — MISSING
Water Seal Rings 32194N Box 13	2 — "
Packing 1" x 10'6" Graphite Box 13	4 e
Bearing Impeller Nuts 32499H Box 15	2 e
Bearing Impeller Keys 1 x 1 x 6" Box 13	2
Bearing Set Screws 1/2 x 3/4" Box 13	2
Bearing Coupling Keys 1 x 1 6" Box 13	2
Coupling Nuts for Shafts CS 32499NTH Box 13	2
Bearing Set Screw 1/2 x 1" Box 13	2
Intermediate Shaft Bearing Grease Seals 2941 Box 13	8
Coupling Lock Screws Box 13	8
Rigid Coupling Nuts R.H. 32499N Box 13	2
Rigid Coupling Nuts L.H. 32499 Box 13	2
Rigid Coupling Keys 1 x 1 x 6" Box 13	4
Packing, Graphite 1 x 6" Box 13	4
<u>18" Vertical Mixed Flow Pumps</u>	
Impeller Shaft Sleeves, Upper 34782 N Box 13	2 e
Impeller Shaft Sleeves, Lower 34782N Box 13	2 e
Shell Bearing at Pump CL4/2 347913B Box 13	2 — MISSING
Shell Bearing at Hub Disc. C.I. 4/2 34809BB Box 13	2 — "
Water Seal Ring 32402N Box 13	2 — 4
Impeller Shaft Stuffing Box Packing 1 x 8" Box 13	4 — MISSING
Bearing Impeller Nut Box 13	2
Impeller Keys 11/16 x 5 1/4" Box 13	2
Impeller Set Screws 1/2 x 1/2" Box 13	4
Impeller Shaft Keys 11/16 x 4-1/8" Box 13	2
Impeller Shaft Set Screws 1/2 x 1" Box 13	2
Coupling Nut Set Screws 1/2 x 1" Box 13	8
Intermediate Shaft Bearing Grease Seals 2392 Box 13	8
Bearing Seals at Pump, Garlock 2392 Box 13	4 — 2 1/2
Impeller Shaft Coupling Nuts Box 13	2 — MISSING

Description	Amt. On Hand
<u>18" Vertical Mixed Flow Pumps (Cont.)</u>	
Coupling Lock Screws 1/2 x 1" Box 13	8 2 2 4 4 } MISSING
Rigid Coupling Lock Nuts R.H. Box 13	
Rigid Coupling Lock Nuts L.H. Box 13	
Rigid Coupling Keys 11/16 x 4-1/8 Box 13	
Motor Base Stuffing Box Packing Box 13	
<u>Operators and Starters for 18-20-30" Valves</u>	
Pilot Light Bulbs 28-81 Box 5	20 3 3 36 72 36 9 3 3 1 Set } MISSING
Overload Heater Relays 84-361-18 Box 5	
Operating Coils 9-464-1 Box 5	
Contacts 4221-4 Box 5	
Contacts 21-368 Box 5	
Springs 69-194 Box 5	
Springs 969-473 Box 5	
Springs 69-534 Box 5	
Springs 69-670 Box 5	
Metal Tags 4A, 5, 5A, 5B, 5C	
<u>Salt Water System</u>	
Expansion Joint Copper 5" for Salt Water System Bx 11	20 20 2 } MISSING
Expansion Joint Copper 4" for Fresh Water System Bx 10	
Expansion Joint Copper 4" for Compressed Air System	

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Capstan Spares:</u>	
Bushing, Upper Spud MM-589 Box 6	1 <i>e</i>
Bushing, Lower Spud MM-592 Box 6	1 <i>e</i>
Bushing, Upper Main Shaft MM-587 Box 6	1 <i>e</i>
Bushing, Lower Main Shaft CA-945 Box 6	1 <i>e</i>
Ball Bearing, Single Row SKF 220 Box 6	1 <i>e</i>
Ball Bearing, Double Row SKF 5220 Box 6	1 <i>e</i>
Thrust, Washer, Upper MM-586 Box 6	1 <i>e</i>
Thrust, Washer, Lower CA-543 Box 6	1 <i>e</i>
Roller Bearing SKF-N318 Box 11	1 <i>e</i>
Ball Bearing ND-3315 Box 11	1 <i>e</i>
Metal Spare Parts Box	1 — <i>Missing</i>
<u>30" Vertical Mixed Flow Pump Spares:</u>	
Bronze Glands 4/2 32194N Box 10	2 <i>e</i>
Gland Clips, Bronze Box 10	2 <i>e</i>
Studs, w/Nuts 3/4 x 4" Brz Box 10	4 <i>e</i>
Coupling Bushing Rubber Box 10	10 <i>e</i>
Coupling Pins, Steel Box 10	10 <i>e</i>
<u>18" Vertical Mixed Flow Pumps:</u>	
Bronze Gland w/Clips 32402N Box 10	2 <i>e</i>
Studs, 3/4 x 4" Brz w/nuts Box 10	4 <i>e</i>
Coupling Bushings, Rubber Box 10	10 <i>e</i>
Coupling Pins, Steel Box 10	10 <i>e</i>
<u>18 - 30" Underwatering Pumps Lubricating Systems:</u>	
Trabun Lub Pump w/Motor & Valves Box 4	1 <i>e</i>
Motor 1/4 HP 3 Ph 60C 45A 44V w/Reduction Gear Box 4	1 <i>e</i>
Line Starter TL 3P 440V 15A 1/4HP Box 5	1 <i>e</i>
Instruction Book	1 — <i>Missing</i>
<u>18 - 20- 30" Valve Operators & Starters:</u>	
— Red Glass Outer Globe Box 2	5
— Green Glass Outer Globe Box 2	5
— Limit Switch for TN-34 Controller Box 2	2
— Limit Switch for TN-5Y Controller Box 2	2
— Start & Stop Pushbutton Assembly Box 2	2
— Metal Spare Parts Box	1
<u>18 - 20- 30" Gate Valves:</u>	
— Stuffing Box Packing for 30" Kennedy Box 1	5
— Stuffing Box Packing for 30" Chapman Box 1	5
— Stuffing Box Packing for 20" Kennedy Box 1	1
— Stuffing Box Packing for 18" Kennedy Box 1	5
— Stuffing Box Packing for 18" Chapman Box 1	5

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Automatic Lubricating System:</u>	
Grease Pistons, Cumo Filter L5-AD1 Box 1	2 C
Ball Bearings Box 1	5 C
<u>Valve Extension Shafts, Flooding & Pumping System:</u>	
✓ Bushings, Brz. 1 1/2" ID Box 5	2 C
✓ Clevis Pins; Brz 1" Dia. Box 5	2 C
Universal Joints, Pc #2 Box 5	2 C
✓ Universal Joints, Pc #6 Box 5	2 C
✓ Universal Slip Joints, Pc #5 Box 5	2
✓ Sleeves, Brz 2" ID x 38" Lg. Pc. #30 Box 5	2
✓ Sleeves Brz 2-1/8" ID x 38" Lg Pc. #29 Box 5	2 C
✓ Bevel Gears 105* Box 5	1 Pr. C
✓ Bevel Gears 90* Box 5	1 Pr. C
✓ Brz Shafts for 90* x 105* Gears Box 5	2 Pr. C
Stuffing Gland, Brz for Gear Boxes Box 5	4 C
✓ Gear Box Housing w/Bushings 90* Box 5	0
✓ Gear Box Housing w/Bushings 105* Box 5	0
✓ Self-Lub Bearings, Brz Bushings Graph 2-3/8" Shaft Box 5	2 C
✓ Self-Lub Bearings, Brz Bushings Graph 2-1/4" Shaft Box 5	2 C
<u>Vacuum Priming System, Flooding & Pumping:</u>	
✓ Motor Complete with Shaft	1
✓ Stator Coils w/Slot Insulation Box 7	1 Set
✓ Motor Bearing Box 7	1 Set
✓ Spare Parts Box	1
<u>Vacuum Priming Pump, Rotor Assembly:</u>	
Rotor Pc #110 Box 8	1 C
Shaft Pc #111 Box 8	1 C
Shaft Nut #126 Box 8	1 C
Lock Washer Pc #155 Box 8	1 — MISSING
Vacuum Gauge	1 C
Relief Valve	1 — 2
Ball Bearings	2 — MISSING
<u>Cone & Head Assembly, Vacuum Priming Pump:</u>	
Head Box 8	2 C
Studs Head 5/16" Box 8	16
Studs, Bracket 3/8" Box 8	8
Nuts, 5/16" Box 8	16
Nuts, 3/8" Box 8	8
Pipe Plugs Box 8	12
Cone Drive End #2 Box 8	1
Cone, Idle End #1 Box 8	1
Studs, Gland 5/16" Box 8	4

<u>Description</u>	<u>Amt.</u> <u>On Hand</u>
<u>Cone & Head Assembly, Vacuum Priming Pump: (Cont)</u>	
Nuts, 5/16" Box 8	4
Thread Protectors 3/8" Box 8	2
Nipples, Seal 3/8" Box 8	2
Elbows, Seal 3/8" Box 8	2
Glands Box 8	2
Packing, Spool - 5 lbs Box 8	1 e
Gaskets, Body & Head Box 8	36 e
Gaskets, Cap, Idle End Box 8	8 e
Gaskets, Flange Box 8	8 e
Shims 1/16" Box 8	2
Shims 1/32" Box 8	2
Shims Laminated 1/32" Box 8	2
Bearing, DE Box 8	1
Bearing, FE Box 8	1
Spare Parts Box 8	1
Belfield Relief Valve Box 8	1 e
Vacuum Gauge Box 8	1 e
Ball Bearings Box 8	4 e
Spare Parts Box 12	1

Description	Amt. On Hand
<u>Capstan Box 9</u>	
— Rotor Complete Box 9	1
— Stator Coils with Slot Insulation Box 9	1 Set
<u>Electrical System Boxes 3-5-7-8</u>	
✓ Line Starter Type I 3P 600V for Lub Mot. or Starter Box 5	1
✓ Starter Complete for Vacuum Pump Starter Box 8	1
✓ Starter Complete for Power Capstan Motor Starter Box 7	1
✓ Stuffing Tubes, AA Navy Type 9S5166L, XLVIII-I Box 3	2
✓ Stuffing Tubes, V Navy Type 9S5166L, SLVIII-I Box 3	2
✓ Stuffing Tubes, L, Navy Type 9S5166L, XLVIII-I Box 3	2
✓ Stuffing Tubes, B, Navy Type 9S5166L, XLVIII-I Box 3	2
✓ Metal Spare Parts Box	1
Extra Resistors WE 600 OHM #2154233	3
<u>Flooding & Pumping System 30 Vertical Mixed Flow Box #2</u>	
— Impeller, 40,000 #S-ST 35-1/4" Box 2	1
— Impeller Ring, Brz. Hub Side 88-8-4Z Box 2	2
— Impeller Ring, Suction Side, Brz 88-8-4Z Box 2	2
— Hub Disc Wearing Rings, Brz. 88-8-4Z Box 2	2
— Suct. Disc. Wearing Rings, Brz. 88Z Box 2	2
— Steel Pump Shaft Box 2	1
— Shaft Bearing, 8/2 C.I. Babbitted Box 2	4
— Retaining Pins, 3/4 x 2-1/4" Brz. Box 2	16
— Shaft Sleeves 88-8-4Z Box 2	4
— Pump Thrust Bearing Box 2	1
— Sleeve, Motor Base Stuffing Box Shaft Box 2	1
— Packing Gland, Motor Base 88-8-4Z Box 2	1
<u>18" Mixed Flow Pumps Flooding & Pumping System Box 2</u>	
Impeller 21-1/8" 4000 #S-ST Box 2	1
Impeller Ring, Hub Side Brz. 88-8-4Z Box 2	2
Impeller Ring, Suct. Side, Brz. 88-8-4Z Box 2	2
Hub Disc. Wearing Rings, Bronze 88-8-4Z Box 2	2
Hub Disc. Wearing Screws Brz. 3/8 x 1" Box 2	16
Pump Shaft, Steel Box 2	1
Shaft Bearing, Babbitted Box 2	4
Retainer Pins Brz. 3/4 x 2-1/4" Box 2	4
Shaft Sleeves, Brz. Box 2	4
Pump Thrust Bearing Box 2	1

Missing

Missing

Description	Amt. On Hand
<u>Shaft Sleeve, Motor Stuffing Box, Brz. Box 2</u>	
Packing Glands w/Clips 2/2 Brz. Box 2 Bronze Inter. Shaft Sleeve, Motor Stuffing	1 ^e 1 - Missing
<u>200 M. P. Pump Motor, Flooding & Pumping System Box 1</u>	
✓ Rotor, Complete Box 1 ✓ Stator Coils with Slot Insulation Box 1 + 1/2 set (14) Bearing & Lining With Rings Box 1 ✓ Motor Thrust Bearings Box 1	1 1 Set 1 Set - Missing 1
<u>Flooding & Pumping System 100 HP Pump Motor Box 4</u>	
✓ Rotor, Complete Box 4 ✓ Bearings & Linings with Rings Box 4 Motor Thrust Bearings (1 SKF 1 FAF) Box 4 ✓ Stator Coils & Slot Insulation Box 6	1 1 1 - Missing 1
<u>Valve Extension Stem Box 10</u>	
✓ Bevel Gears 105* Box 10 ✓ Bevel Gears 90* Box 10 ✓ Universal Joints Pc #2 Box 10 ✓ Universal Joints Pc #6 Box 10 ✓ Universal Joints Pc #5 Box 10 ✓ Sleeves, Brz. 2" I.D. x 38" Lg. Pc #30 Box 10 ✓ Sleeves, Brz. 2-1/8" Lg. Pc. #29 Box 10	1 Pr. ^e 1 Pr. ^e 2-6 2 ^e 2 ^e 2 ^e 2

DescriptionAmt.
On HandMisc. Items Aboard Drydock not listed on schedule of spare parts

6 1/2" Circunference rope 600' L. (used)	
Flexible expansion joints (F2085)	4 Pcs. ¹²
Flexible metallic tube w/flange on each end 1" O.D. tubing	9 Pcs. ¹²
Wrench for valves for buoyancy chambers	1 MISSING
Racks (bilge blocks)	370 ⁰
Box pattern for boilland 3 Pcs.	1 MISSING
wingwall stairway complete, (4 sections of ladders and 4 landings) stored ashore.	1

Portable Electrical Equipment on Board Drydock

✓ Jumper cables with N-26 Plugs	14
✓ Jumper cables with N-4 Plugs	4
✓ Jumper cables with N-2 Plugs	4
✓ Jumper cables with N-4SC Plugs	4
✓ Jumper cables with N-6 Plugs	4
20 Amp. N3SG Plugs	30
4 Pole 200 Amp. Plugs	5
400 Amp. N3 Plugs	2
✓ Loud Hailers	2
✓ Microphone Handsets	2
3/c No. 12 Rubber Cables (used)	500'
3/c No. 1 Rubber Cables (used)	100'
✓ 1/c #4/0 Rubber Cables (used)	400'

UNDERWATER SERVICES

Box 2, Box 509 - Estacada, Oregon 97123

(503) 630-6703

24-Hour Diving Service

SHIP: Navy Drydock 528' x 118'

LOCATION: Port of Portland, Swan Island

DATE & TIME: 11-19-79 0830

SERVICE: Underwater hull inspection

PROCEDURE: Line tended scuba diver working from dive boat. 52 underwater runs from side to side were made at 10' intervals.

VISIBILITY: 5' with headlight

CREW: 1 diver, 1 tender/standby diver

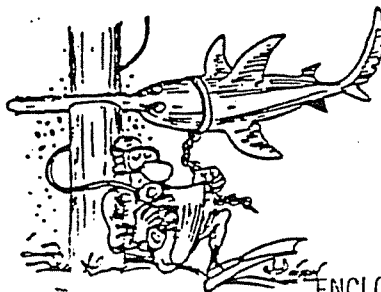
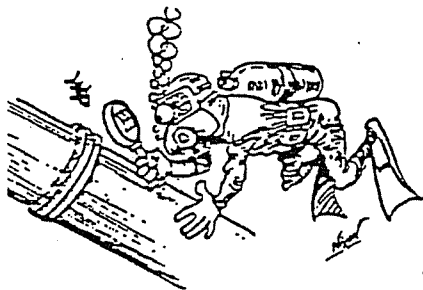
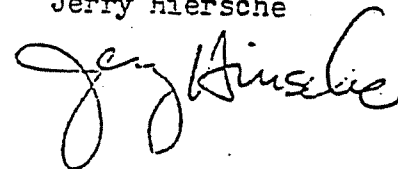
ORDERED BY: Chuck Requa, Port of Portland

BILLED TO: Port of Portland Invoice #0768 P.O. #203051

REPORT: No Damage Found. Inspection was done in an orderly and safe fashion, conditions were excellent with no current and good visibility. Diver, Kevin Hiersche, reports overall condition to be very good and not changed from previous inspection done 6-13-78. One log was found floating up against hull on forward end and was removed from area. All paint is good and no marine growth is visible except for a brown algae type that covers the entire underwater hull and is about 1/8" thick or less. This growth rubs off easily by hand. Members supporting aprons on both ends were checked and are in very good condition. Block patterns in paint are lightly rusted but steel is not exposed. OVERALL CONDITION**VERY GOOD.

ref: #SH0768
Copy to: Chuck Requa

Jerry Hiersche



ENCLOSURE (3)

PSY500006109

EXECUTIVE SUMMARY

The Port of Portland Ship Yard (PSY) has the most complete and up- to-date occupational health and safety program of the three divisions audited. It is clear that the Environmental, Health and Safety Managers have taken significant steps to develop policies and programs to meet regulatory requirements as well as provide site-specific work procedures for PSY employees. Other divisions audited indicated that they had based some of their programs on work performed by PSY.

There has been virtually no Workers' Compensation activity with regard to health-related issues at PSY in the last few years. There have been only two entries (as All Other) in the OSHA 200 Log for the years 1990 - 1993, with neither of these being a "lost day" case.

PSY has a good overall program, with only a limited number of areas that require updating and further development. In at least one case, hearing conservation, the deficiency can be addressed by a reliance on Corporate Risk Management to coordinate a service.

Hazard Communication

With regard to Hazard Communication (HAZCOM), PSY experiences the same problems noted in the other division audits concerning coordination with the Corporate Risk Management Department in maintaining Material Safety Data Sheets for all chemicals utilized in the Port. Overall, the stated goals of the HAZCOM program are being met, with Material Safety Data Sheet (MSDS) binders available in each of the craft offices. In addition, worker information stations describing the use of MSDSs and other information on chemical hazards and protective equipment usage are located in each of the craft shops. All supervisors were well aware of HAZCOM requirements and the need for requiring MSDSs prior to purchase of new chemicals. Each supervisor reports that employees are briefed when new products are purchased that provide unique or unusual hazards.

The primary problem with the HAZCOM program lies in maintaining current revisions of MSDSs for all of the chemicals in an area and purging old data sheets from the binders. Data sheets could not be located for several products selected at random. It was also noted that there are no firm controls in place for evaluating the purchase of chemicals from a health/safety standpoint. Currently, an operating craft can purchase chemicals which may have unique or unacceptable risks from a Safety/Environmental Department perspective. These new chemicals may not be included in the comprehensive list maintained at PSY or the POP Corporate office.

It is also questionable whether Ship Repair Contractors have an adequate HAZCOM program in place to warn PSY personnel about the hazards of newly introduced chemicals. The introduction of a new paint or abrasive agent in the dry dock area and the exposure potential to staging crane operators present the greatest potential problem in this area.

Hearing Conservation

PSY has had less than optimal compliance with OSHA Hearing Conservation requirements due to a reliance on Corporate scheduling of annual audiometric examinations. Under the current schedule, tests are given in winter months when many personnel are on layoff or otherwise absent. This problem can be overcome by PSY taking over responsibility for scheduling personnel for initial testing and arranging make-up tests as required. PSY has investigated the possibility of using Cascade General's medical facilities for conducting on-site hearing tests. This would be a good solution if costs are not prohibitive.

Safety Procedure Compliance

Craft foremen could more aggressively audit safety program compliance and enforcement of existing policies and procedures. While this is difficult to substantiate with concrete examples, it is noted that there have been no documented disciplinary write-ups for failure to comply with safety rules in the last two years. This is of interest since there was an in-depth discussion at the August Safety Committee meeting on the topic of lack of compliance with personal protective equipment requirements and how to get personnel to use protective equipment. In addition, at least one supervisor/foreman stated that he does not actively go out and watch personnel to see that they are wearing the required protective equipment. It was also noted during the safety meeting that the Lockout/Tagout Program was being misused since machinists were using gang locks. A thorough audit of the program by supervisors would have identified this deficiency.

OSHA Expanded Chemical Standards

PSY has the greatest potential exposures to OSHA expanded standard chemicals including benzene, lead, arsenic and asbestos. OSHA requires that specific measures be implemented based on the degree of exposure presented to employees. The development of a written Lead Abatement Program is a priority that is needed to comply with these expanded chemical standards. The need for this program is currently being driven by the large scale repairs being performed on Dry Dock 3. The PSY Environmental Compliance Manager and staff have implemented virtually all of the requirements dictated by the Lead Standard (1910.1025 and 1926.62), and now need only to formalize these practices in a written document.

Additional industrial hygiene evaluations are needed to determine if any aspects of the Benzene or Arsenic Standards are applicable. It was noted that a limited amount of air sampling has been performed in the past (1989 and 1992) to determine exposure to benzene at the Ballast Water Treatment Plant (BWTP) and total dust and respirable dust exposures for select operations. However, particulate monitoring has not specifically addressed exposure to heavy metals during PSY abrasive blast operations, and staging crane operator exposures to both metals and benzene have not been evaluated during worst-case exposure potential.

Occupational health hazard potential associated with chemical exposures is limited for most crafts. Staging crane operators and painters have the highest exposure potential. Painters' greatest exposures occur when conducting confined space work such as inside dry dock tanks and/or when using isocyanate paint. Painters also have potential lead and arsenic exposures when conducting abrasive blast operations. Staging crane operators' peak exposures occur

primarily during hull painting and sandblasting operations. Chemical exposures for other crafts are, for the most part, typical and routine.

As mentioned previously, several of these routine tasks have been monitored in the past under typical conditions and have been shown to present minimal exposure potential. Thorough surveys have been completed to locate and identify areas of asbestos-containing materials and high noise areas. The results of recently performed air monitoring have been provided to the appropriate involved employees and the majority of employees are aware of how and where to get access to past results.

Confined Space Program

PSY has implemented a confined space program based on 29 CFR 1910.146 that is specific to PSY operations. This program is sound and needs only minimal updating and modification to reflect OSHA's new 1915 Subpart B standard. This new standard applies to all confined space work within the shipyard.

Temporary Employees

At least one supervisor has expressed concern that the use of temporary employees and the reduction in the number of skilled employees will have or is having an impact on the safe performance of job duties. This concern was raised in reference to the Utility crew and the ability to have trained personnel on hand to safely dry dock ships.

AUDIT SUMMARY TABLE

- 1/2. As with the other divisions monitored, site-specific operational procedures have been incorporated into a Loss Prevention Plan that reflects both PSY and Corporate policies and procedures. A copy of the Loss Prevention Plan is maintained in each of the operational departments.

Recommendation:

Each of these documents should be reviewed by in-house personnel on an annual basis to ensure that they are current and applicable to existing operations, and to assure compliance with record-keeping requirements. Each procedure/policy should be re-dated when it is reviewed to confirm that a review/update has taken place.

3. PSY has an active health and safety committee. The committee has regular monthly meetings and conducts regular inspections of the various departments. Overall, the committee appears to be involved and effective in addressing most safety issues. According to some committee members, corrective action is sometimes difficult to accomplish and/or prioritize.

Recommendation:

A definitive method for identifying priorities for corrective action, along with a published schedule and list of individuals responsible for correction, is needed to ensure compliance with Item 9.B of PSRY Instruction 5067.1.

4. The HAZCOM Program has the same deficiencies noted at the other divisions audited. It is difficult to ensure that MSDSs are updated and obtained for all materials. Individual departments may purchase products and not obtain a MSDS. Maintaining an up-to-date chemical list for all departments is also difficult. Individual departments "pencil in" new products on their list, but these new additions may not be added to the overall PSY MSDS Index and are not always forwarded to Corporate. During the audit, the correct MSDSs for some of the items checked could not be located. Overall, the PSY departments do a good job of labelling secondary containers.

A comprehensive Chemical Hygiene Plan (CHP) has been developed for the BWTP. At the time of the audit, laboratory operators were not able to find the plan. There were some problems with storing oxidizing corrosives with flammable liquids, which is not allowed by the CHP. Calibration gas used to calibrate hydrogen sulfide dosimeters was out of date. The CHP covers generic laboratory safety well but does not focus on specific laboratory operations.

Recommendations:

All departments need to follow the written Hazard Communication Program. A policy on types of chemicals not considered acceptable for health, safety and/or environmental reasons is recommended.

Each craft foreman should be tasked with routinely updating the area MSDS binder to ensure that all chemicals are represented by the most current revision. The revised index should be forwarded to the Services Manager and Corporate to update master volumes.

There is no good real-time communication between Shipyard Contractors and Port personnel with regard to Hazard Communication and the introduction of new chemicals that could potentially expose PSY employees.

It would be beneficial to establish a procedure to ensure that ship repair contractors do not use a new chemical having the potential to expose other than ship repair contractor personnel until all potentially impacted parties are warned of possible health/environmental hazards. A CIH should be involved in reviewing all incoming MSDSs.

The lab operator and a CIH should evaluate and update chemical storage policies and procedures to ensure compliance with the written CHP. It is also recommended that the operator prepare a brief report for the Chemical Hygiene Officer as to the overall status of compliance with the Plan during routine operations. Calibration gases should be replaced as needed to ensure that they are within manufacturer specifications.

Lab-specific operations and their related hazards should be addressed in the CHP.

5. PSY has already taken the majority of steps necessary for compliance with the programs required for lead exposure. Industrial hygiene monitoring has been conducted, protective clothing and training have been provided, temporary change rooms and shower facilities have been completed, and initial blood lead level tests are given to exposed workers.

Initial industrial hygiene monitoring has not been adequate to reliably ascertain exposures to lead and arsenic for staging crane operators and utility personnel working on dry docks during sand blast and grit clean-up operations. Documentation is not adequate to ensure that BWTP personnel have been appropriately evaluated for benzene exposure during maximum exposure potentials.

PSY painters use abrasive blast grit which is likely to contain low levels of lead and arsenic. Staging crane operators are potentially exposed to the materials when contractors are spray painting and/or abrasive blasting on the dry docks. Utility personnel are potentially exposed when removing spent grit from the dry dock. These operations have not been adequately evaluated for lead and arsenic during worst-case exposure potentials.

PSY implemented a new Asbestos Policy (July 1993) which mandated asbestos audits of the shipyard, and has an asbestos identification, operations and management program. However, the program is not as specific as it should be in detailing work procedures, locations of asbestos-containing materials, etc. There is also some question about whether annual inspections are conducted and documented.

Recommendation:

Each of the above areas should be evaluated under worst-case situations to determine if exposures above action levels are possible so that appropriate programs can be developed and implemented. An industrial hygienist should conduct these evaluations under the direction of a CIH.

The general industry Lead Standard [1910.1025 (j)(3)(i)(B)] states that a detailed physical examination, including more than blood lead/ZPP be given for initial exposure.

All of the steps taken to date need to be formalized into a written lead abatement/control program.

6. The current procedure for scheduling audiometric monitoring is not optimal for ensuring that personnel receive timely audiometric examinations.

Recommendation:

PSY should take over the task of scheduling audiometric exams. The use of Cascade General's facilities may be a cost-effective solution.

7. Some operating groups, including maintenance, are currently using a "gang lock out" practice which is contrary to the PSY lockout procedure. Several craft members may have keys to the gang lock; therefore, it does not provide the same protection as individual locks and keys. It should be noted that OR-OSHA does not allow the use of gang lockout, although Federal OSHA does.

Recommendation:

Revise Lockout Procedure to more specifically rule out this practice, and issue a follow-up memo to all groups.

A special procedure has been developed for work on the 480 volt bus bar supplying voltage to mobile cranes. Other operations involving work around high voltage equipment (including the 12,000 volt equipment) should also have specific written procedures.

8. PSY has a confined space program which fully meets the intent of OSHA's confined space standards. Confined space test instruments are currently maintained and calibrated by the maintenance department, which appears to be well trained in the use and calibration of these instruments. Several minor discrepancies currently exist, however, including detailed references to ventilation and requirements for the calibration and use of air monitoring instrumentation. The current procedure does not reference the new OSHA Shipyard Confined Space Standard.

Recommendation:

Revise the current Confined Space Procedure to reflect the requirements of the new 1915 Subpart B standard which applies to shipyards. Ensure that all procedure terminology is consistent with the standard.

Provide further training to personnel on how to complete the existing entry permit. Consider modifying the atmospheric testing section of the permit to make it easier to fill out.

No absolute criteria exist for how often test instruments should be calibrated. The current practice of calibrating instruments on a quarterly basis is not adequate. Instruments used to guarantee safe conditions should be calibrated on a daily basis just prior to use. A written procedure is recommended for calibration and maintenance of monitoring equipment. Reference to the use and calibration of monitoring equipment should be added to the Confined Space Procedure.

Allowable entry conditions should also be updated. The current TLV for carbon monoxide is 25 ppm rather than 40 ppm as allowed on the current entry permits. The new OSHA Subpart B sets 22% rather than 23% as the level for oxygen-enriched atmospheres. Atmospheric values listed in Enclosure 3 are not consistent with the values contained in the main body of the procedure. The procedure should be updated to include current values.

More detailed guidelines are required regarding the emergency entry of personnel into spaces considered IDLH.

9. Since there is a nurse's station and hospitals in the immediate area, PSY has decided to rely on these services and no longer provide first aid and CPR training to employees. This is consistent with a new OR-OSHA directive which eliminates the requirement for first aid trained personnel when nearby medical attention is available.
10. There is no requirement for a Bloodborne Pathogen Program, since PSY personnel no longer provide first aid.
11. PSY has the most comprehensive respiratory protection program of the three divisions audited. The majority of current personnel received an initial fit test in 1991, with no subsequent retesting. Pulmonary function tests were given to some of these workers at that time.

Personnel involved with lead abatement have recently received pulmonary function tests and annual fit-testing from the Cascade General nurse. The Port is currently using Cascade General guidelines defining what respiratory fit test results are considered acceptable. Cascade General records indicate that specific respirator training is given with 3M brand respirators, but the Respiratory Protection Procedure states that Wilson is the brand of standard respirator supplied from stores. Personnel receive training on air-purifying respirator usage at the time fit tests are received. Safety Committee members perform a quarterly inspection of all respirators and maintain records to ensure that they are being maintained properly.

Painters use APR respirators for protection from isocyanate paints. While these respirators provide protection against isocyanates, they are not approved because of the poor warning properties associated with isocyanate paints. One painter was monitored for isocyanate exposure in the past. However, documentation is not adequate to ensure that this sample represented a worst-case exposure potential. In addition, the MSDS reportedly used for the paint monitored does not list the paint as containing isocyanates.

Additional fit-testing is required on a six month basis for lead abatement workers. This requirement should be implemented as soon as possible. There may also be requirements for quantitative fit-testing if lead or arsenic exposures are greater than 10 times the PEL.

Staging crane operators are provided disposable dust masks as well as replaceable cartridge type masks to use during abrasive blasting and painting operations on the dry dock. Particulate dust masks are not necessarily adequate if heavy metal exposure levels exceed the PEL. They would not be adequate for organic solvent exposure resulting from painting operations.

The Confined Space Procedure references use of five minute escape systems. Use of these systems is not referenced in the Respiratory Protection Procedure.

Recommendations:

The Cascade General medical criteria determining that personnel are medically fit to wear respirators should be evaluated by a POP-approved physician to determine whether Cascade General guidelines are acceptable.

Because of their extremely toxic nature, isocyanate exposures should be monitored to ensure that exposures are below PELs. Personnel should use supplied-air respirators whenever they spray isocyanates.

Ensure that the mask being used for qualitative fit testing matches the type of respirator being supplied to PSY personnel.

Ensure that only fit-tested HEPA-equipped half-mask respirators are provided to personnel on the dry docks who are exposed to dusts which potentially contain heavy metals, until such time as air monitoring under worst-case conditions has shown that exposure levels are less than the PEL. At a minimum, provide half-mask respirators equipped with organic vapor cartridges and pre-filters during painting operations.

Specific quantitative fit-testing protocols are required for workers enrolled in the lead program if they are wearing full-face air-purifying respirators.

Reference the use of five minute emergency egress systems in the Respiratory Protection Procedure.

12. The current personal protective equipment (PPE) program does not include reference to PPE needs for expanded standard chemicals and specific tasks such as confined space entry.

Recommendations:

A specific PPE Procedure be developed which includes specific PPE requirements for expanded standard chemicals and specific operations requiring special PPE needs.

The PPE section should reference the new OSHA standard, 1910.132 Subpart I, for PPE.

13. The current medical surveillance program at PSY is limited to pulmonary function tests for respirator users and initial baseline blood lead tests for lead workers.

Recommendations:

A comprehensive medical surveillance program is required for emergency responders under HAZWOPER regulation 29 CFR 1910.120, as well as for workers who are exposed to asbestos, arsenic, lead or benzene above action levels. The need for medical surveillance should be determined by additional air monitoring collected under worst-case scenario.

14. The current Emergency Response Plan provides emergency notification numbers and procedures. It does not include all the requirements for 29 CFR 1910.38, *Employee Emergency Plans and Fire Prevention*.

Recommendation:

A written procedure is needed to define emergency escape procedures, escape route assignments, employees who remain to operate critical plant operations, areas of refuge and procedures to account for all employees after an emergency evacuation. These procedures should address higher hazard areas such as the ballast water treatment plant and the CUB.

15. PSY has appropriate EPA/DEQ SPCC and OPA 90 contingency plans for oil spills. PSY has also developed an emergency response team and provided training for oil spills. The emergency response plan currently does not address chemical spills such as paints, solvents, water treatment chemicals, cleaners, etc.

Recommendation:

PSY is not obligated to provide spill team coverage for chemical spills and releases. However, it is important that all personnel understand the limits of allowable response and that personnel specifically be instructed not to respond to chemical spills without training and authorization. A recent chemical release in the CUB was handled in this manner, with Portland Fire Department personnel being called in to handle the spill. Additional development of specific clean up procedures and employee training is necessary if the scope of response should change.

16. The PSY has a pro-active light duty/return to work program coordinated by the Corporate office. No recommendations are offered.
17. There is no ergonomic program in place at present. A program may be required in the future if OSHA promulgates an ergonomic standard. It should be noted that review of POP OSHA 200 logs for the last few years reveals that body mechanic-related injuries are the leading injury type.
18. Training is documented in various binders maintained by PSY. A yearly training schedule is documented in the PSY Loss Prevention Manual. The training schedule divides training responsibilities between Corporate and PSY. It appears, however, that Corporate is not fulfilling all of the assigned training topics. CPR and First Aid training are still assigned to Corporate even though this training is no longer conducted at PSY. It is not clear if the Oil & Chemical Spills training covers the PSY annual emergency response refresher training.

Recommendations:

Lead and other chemical-specific training (i.e., arsenic and benzene training) is not included on the schedule. These areas should be addressed if monitoring indicates potential exposures above the Action Level. Lead training has been completed for personnel currently involved in the dry dock repair project.

It is questionable whether Corporate has the resources or expertise to address site-specific training issues such as lockout/tagout and confined space entry. It is felt that these topics can be better addressed by personnel familiar with site operations.

PSY safety and health procedures made additional reference to training in two additional procedures: crane operator training and training for applicable personnel with regard to the Chemical Hygiene Plan. Annual refresher training is needed in these areas.

Training agendas need to be developed for the topics referenced in the Annual Training Calendar.

19. While the audit focused on health issues, some safety and/or environmental concerns were also noted. These include:
 - a. Hot work in the tank farm: Hot work was being conducted on top of the east "torpedo tank" at the same time that vac trucks were delivering unknown oil/gas sludges. The top of the nearest oil tank had a opening about 20 feet from the hot work area. The opening was covered with a fire blanket to prevent sparks from entering the tank, but it did not prevent flammable vapors from evolving from the tank. A strong petroleum vapor odor from the open tank was noticeable to workers standing on top of the torpedo tank.

Recommendation:

Because the tank farm operators do not know the content and/or flammability of materials being received, hot work should not be conducted during deliveries. Also, tank openings should be secured better to prevent sparks from entering and vapors from escaping during hot work.

- b. The sludge from the tank farm was stored in unmarked, non-DOT approved barrels inside the dike area.

Recommendation:

These drums should be properly marked and stored in approved drums if they are going to be shipped. If this material is considered a usable product, such as a boiler fuel or asphalt additive, an MSDS and appropriate warning labels should be developed.

- c. An electrician was shocked in a utility tunnel during the audit. It appears that verification of the system lock-out was not performed, resulting in a serious "near miss."
- d. Welding cables stretched across the drive into the tank farm were badly worn from vehicle traffic, exposing the conductors. The hazard would have been much greater during rainy conditions. This is a direct OSHA violation [1910.254(d)(9)(i)&(iii)] and presented a shock hazard to nearby workers.

Recommendation:

Cables and hoses need to be protected from vehicle traffic and repaired or discarded when damaged.

- e. M&ET was asked to evaluate the POP's liability concerning lifting materials and man-baskets. Operators have stated that contractors use some man-baskets which they do not feel are safe and will not allow PSY employees to ride in, although they will pick up contractors in the same baskets. PSY personnel use the Port's man-baskets, which are in good condition and built to engineering specifications. PSY requires that their personnel wear safety belts when inside the baskets, but will pick up contractors who are not belted into the contractor's man-basket. This practice exposes the Port to significant third party liability.

Recommendations:

M&ET recommends that PSY require contractors to use man-baskets consistent with PSY policies and procedures. All contractor baskets should be built to the same specifications and be marked and labeled accordingly. All personnel in a suspended basket should wear a restraining lanyard before and during lifts.

The Crane Procedure should be revised accordingly.

- f. A friable material (possibly asbestos) was found on the inside wall surfaces of the steel shed adjacent to the water lab. Test of a removed sample showed that the material did not contain asbestos. It should be noted that the person conducting the tour did not know that the material had previously been inspected by PSY and found to contain no asbestos.

Recommendation:

Better identification of materials likely to be ACM is needed.

- g. The machine guarding procedure is missing from the manual. It is not known whether this this procedure is being revised.

Portland Ship Yard

PROGRAM ITEM	Required?	Available?	Complete?	OSHA Violation?
1. Safety Manual	No	Yes (LP)	No	No
2. Loss Control Manual/Program	Yes	Yes	No	No
3. Health & Safety Committee	Yes	Yes	Yes	No
4. Hazard Communication Program	Yes	Yes	No	Yes (NS)
5. OSHA Chemical Exposure Program	Yes	No	No	Yes (S)
6. Noise/Hearing Conservation Program	Yes	No	No	Yes
7. Lock-Out/Tag-Out Program	Yes	Yes	No	Yes (S)
8. Confined Space Program	Yes	Yes	No	Yes (NS)
9. 1st Aid/CPR Training	No	No	NA	No
10. Blood-Borne Pathogen Program	No	No	NA	No
11. Respirator Program	Yes	Yes	No	No
12. PPE Program	Yes	Yes	No	Yes (S)
13. Medical Surveillance Program	Yes	Yes	No	Yes (S)
14. Emergency Response Plan	Yes	Yes	Yes	No
15. Haz-Mat Response Program	Yes	Yes	No	Yes
16. Return to Work/Light Duty Program	Yes	Yes	Yes	No
17. Ergonomics Program	No	No	NA	No
18. Training	Yes	Yes	No	Yes (S/N)

LP = Loss Prevention Manual

NA = Not Applicable

S = Serious

NS = Non-serious

Pre-Transaction Site Reconnaissance of Portions of the Portland Shipyard Planned for Sale by the Port of Portland

TO: Cheryl Koshuta/Port of Portland
Cory Streisinger/Port of Portland

COPIES: Suzanne Brooks/Port of Portland
Mic Dorrance/Port of Portland

FROM: Stuart M. Brown

DATE: June 20, 2000

Introduction

Bridgewater Group, Incorporated was retained by the Port of Portland (Port) to perform an environmental site reconnaissance of those portions of the Portland Shipyard (PSY) that are planned for sale to Cascade General, Incorporated (CGI). CGI is planning to purchase all of the PSY except for the:

- N. Channel Avenue Fabrication site
- Employee Parking Lot (southeast of the southeast end of Berth 314)
- Berth 311
- Building 70 area (Foss Environmental)

I performed the site reconnaissance on May 26, 2000. I was accompanied by Mr. Mic Dorrance of the Port of Portland.

The primary objective of the site reconnaissance was to document environmental conditions that had changed since the completion of the 1998 PSY environmental audit.

In addition to the site reconnaissance, I also consulted with Mr. Dorrance and Mr. John Childs, also from the Port of Portland, regarding observations they made during their monthly visits to the PSY.

The following summarizes the supplemental environmental concerns that I identified. Appendix A contains the photographs I took during the site reconnaissance.

Berths 312 through 314

Two pieces of electrical equipment were observed to have leaked or be leaking in the Berth 312 through 314 area. The first piece of equipment was a transformer in Substation 8A near Berth 314. The concrete around the base of the transformer was visibly stained (see Photo No. 1). The second piece of equipment was Transformer 4-3 located near Berths 313/314. Fresh transformer oil was observed on the base of the transformer and there was some staining of the underlying concrete pad (see Photo No. 2).

Building 73

Several recent spills of paint or catalyst were observed on the asphalt in the paint storage area located on the south side of Building 73 (see Photo No. 4). According to Mr. Dorrance, releases of this type were observed during several of the monthly site visits he performed after the 1998 PSY environmental audit was completed. Also according to Mr. Dorrance, CGI recently assigned a full-time person to manage the area and since that time, the condition of the paint storage area has improved.

East of Building 73 is a sandblast booth. Staining was observed on the asphalt near the west end of the booth (see Photo No. 4). According to Mr. Dorrance, the magnitude of the staining in this area has increased since the 1998 PSY environmental audit was completed.

Card Lock Fuel System

Staining of the concrete fuel island beneath the diesel fuel pump was observed (see Photo No. 5). Mr. Dorrance stated that he had not observed this amount of staining during previous site visits.

Building 63

The concrete floor beneath a rack used to hold 55-gallon drums of solvents, oils and kerosene was visibly stained (see Photo Nos. 6 and 7). The containment system beneath the rack appeared to be effective in controlling releases to the concrete, but not when drum spigots extend beyond the side of the containment system as was observed during the site reconnaissance (see black and red drum in Photo No. 7).

Paved Area West of Building 10

The paved area west of Building 10 was being used to stage old vehicles and hydraulic lifts and cranes. Stained asphalt was observed beneath a number of the vehicles, lifts and cranes staged in this area (see Photo Nos. 8, 9, 10 and 11).

Berths 305 through 306

Steelhead Construction leases a portion of Berths 305 and 306 from CGI for purposes of constructing houseboats. According to Mr. Childs, the Port has had ongoing concerns about releases associated with over-water construction activities performed by Steelhead Construction. During the site reconnaissance, the floating shed used by Steelhead Construction for material storage was filled with debris (see Photo No. 12). In addition, Steelhead Construction was in the process of completing one houseboat and starting construction on another (see Photo No. 13).

CGI stores chemicals in a shed located near the east end of Berth 315. During the site reconnaissance, staining was observed on the concrete floor next to a metal bin filled with containers of chemicals (see Photo No. 14).

CGI stores spill response equipment in a shed just south of the chemical storage shed. The asphalt around the entrance to the shed was visibly stained with paint (see Photo No. 15).

Building 4

Since the PSY 1998 environmental audit was completed, Columbia Wire and Iron (CWI) has painted metal parts outdoors near the northeast corner of Building 4 (i.e., near the back entrance to Bay 1). According to Mr. Dorrance, the Port has had concerns about CWI's

painting operations because of their proximity to a storm drain (see Photo Nos. 16 and 17). During the site reconnaissance, the painting area was covered with a tent and the asphalt was covered with metal plates. The storm drain, however, was partially open and paint residuals were observed on the asphalt next the entrance to the storm drain.

Stained asphalt was observed near the entrance to Bay 9 of Building 4 (see Photo No. 18). Within Bay 9, the concrete beneath many pieces of metal fabrication equipment (e.g., press, break, shear and roller) – see Photo No. 19. Oil leaks from several of the pieces of equipment appeared to be recent and ongoing.

APPENDIX A
SITE RECONNAISSANCE PHOTOGRAPHS

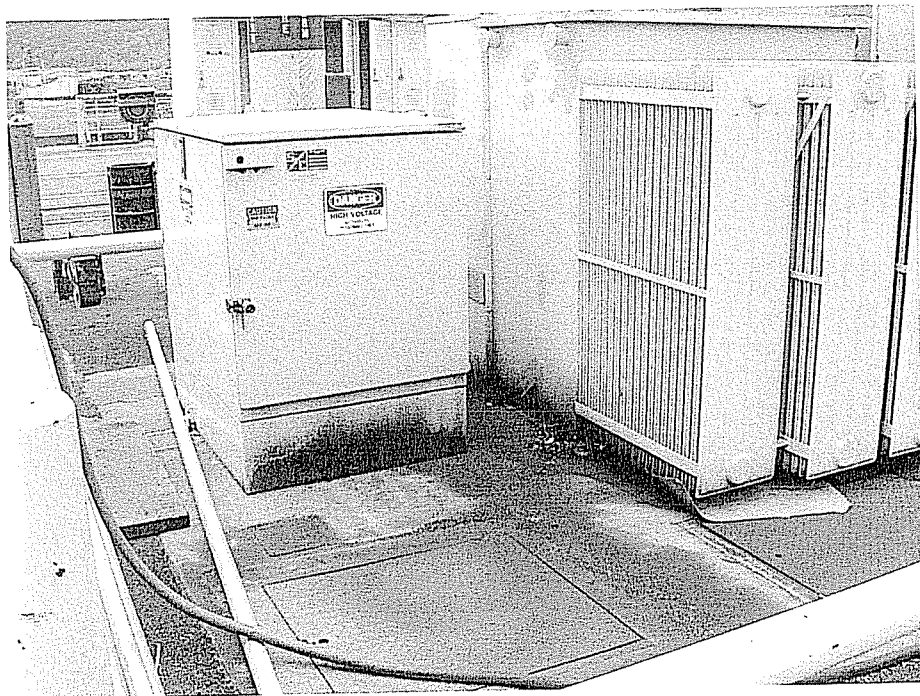


Photo No. 1

Description: Looking southwest at an oil leak from a transformer in Substation 8A.

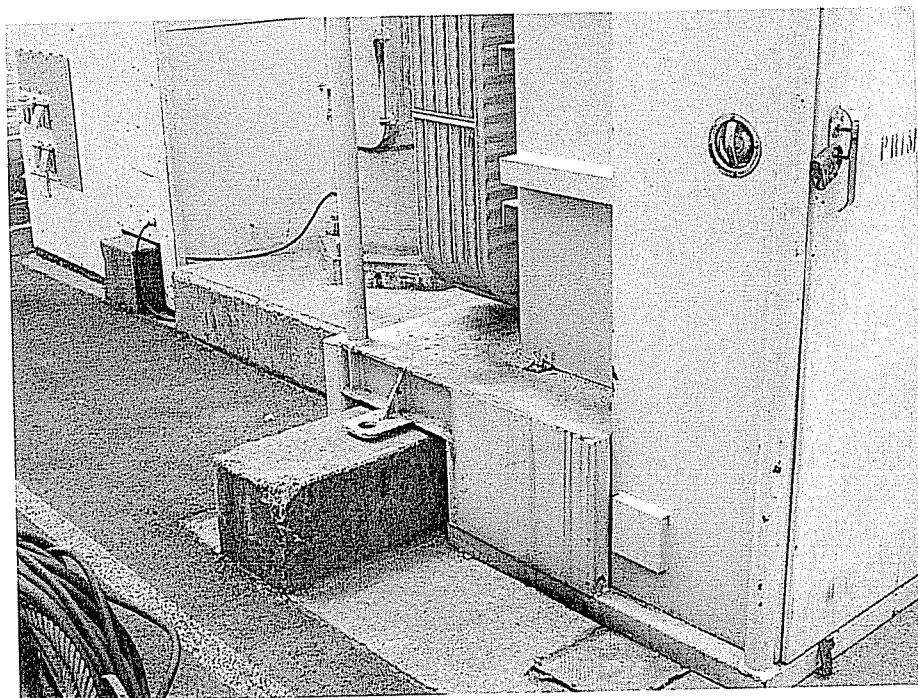


Photo No: 2

Description: Looking southwest at an oil leak from Transformer 4-3 near Berth 314/313

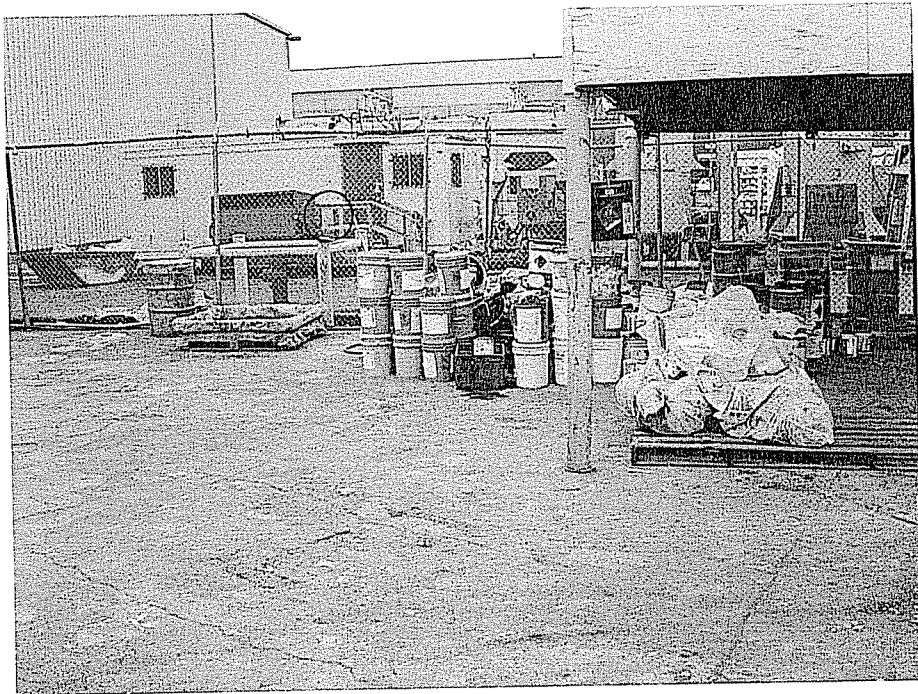


Photo No. 3

Description: Looking north at staining on asphalt in paint storage area adjacent to Building 73

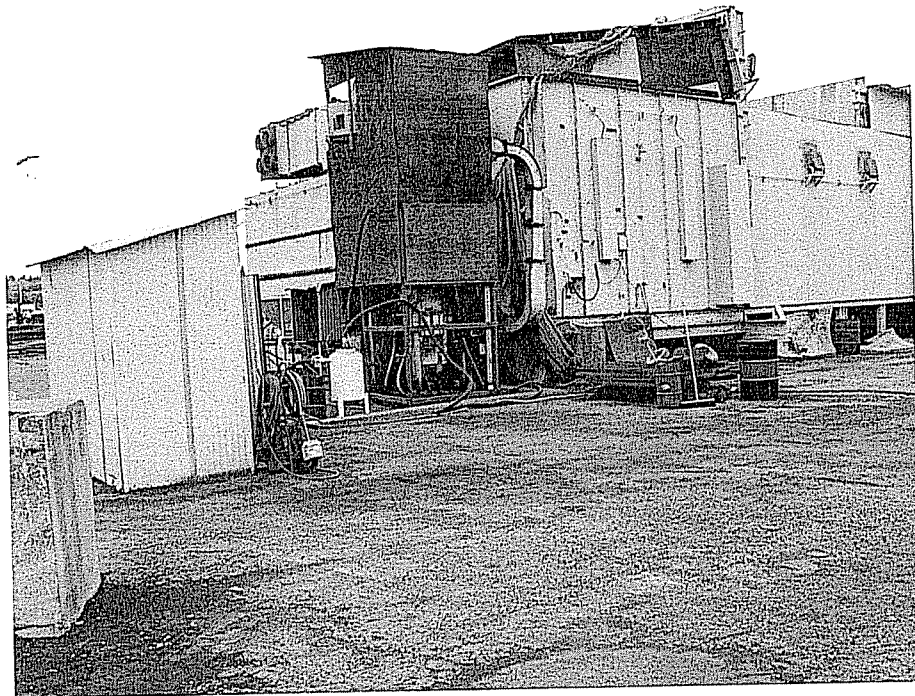


Photo No: 4

Description: Looking north at oil staining on asphalt near the west end of the sandblast booth near Building 73



Photo No. 5

Description: Looking east at leaking diesel fuel pump in the Card Lock Fuel System

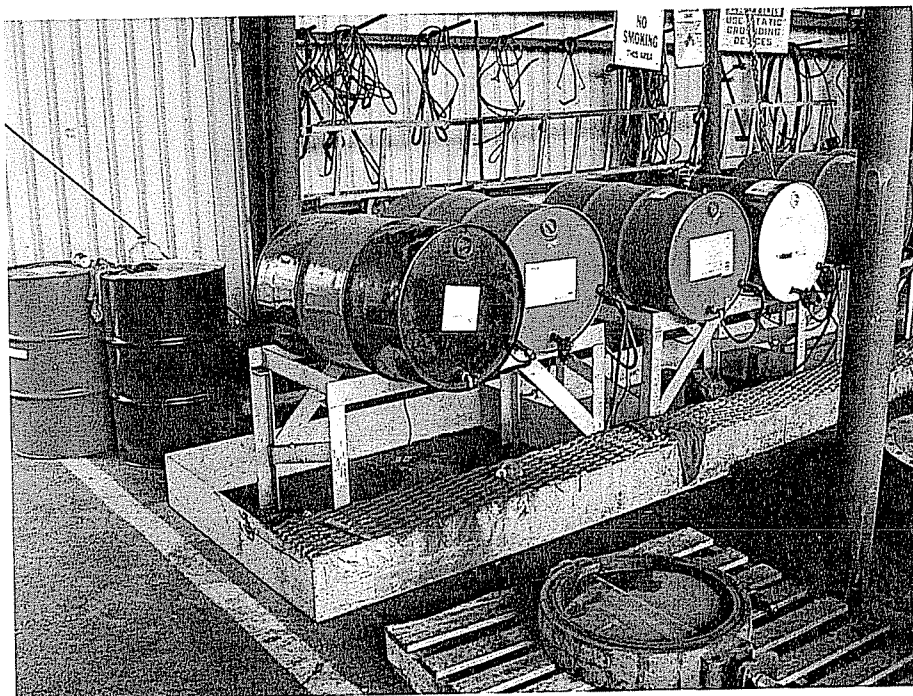


Photo No: 6

Description: Looking at staining on asphalt beneath rack used to 55-gallon drums of solvent, oils and kerosene near Building 63

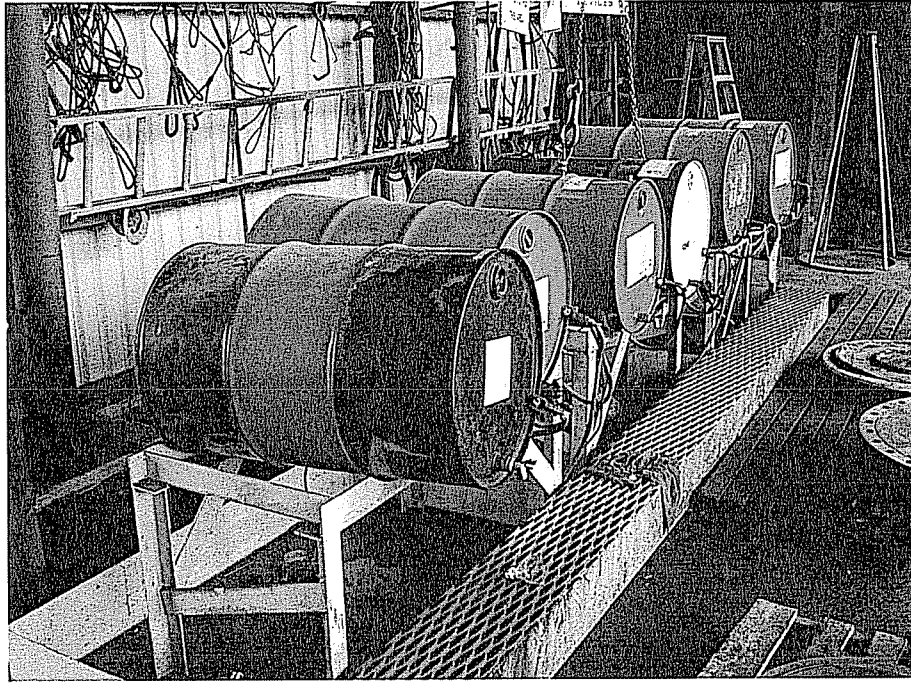


Photo No: 7

Description: Looking at 55-gallon drums on rack near Building 63



Photo No: 8

Description: Looking northwest at staining on asphalt beneath old equipment staged west of Building 10

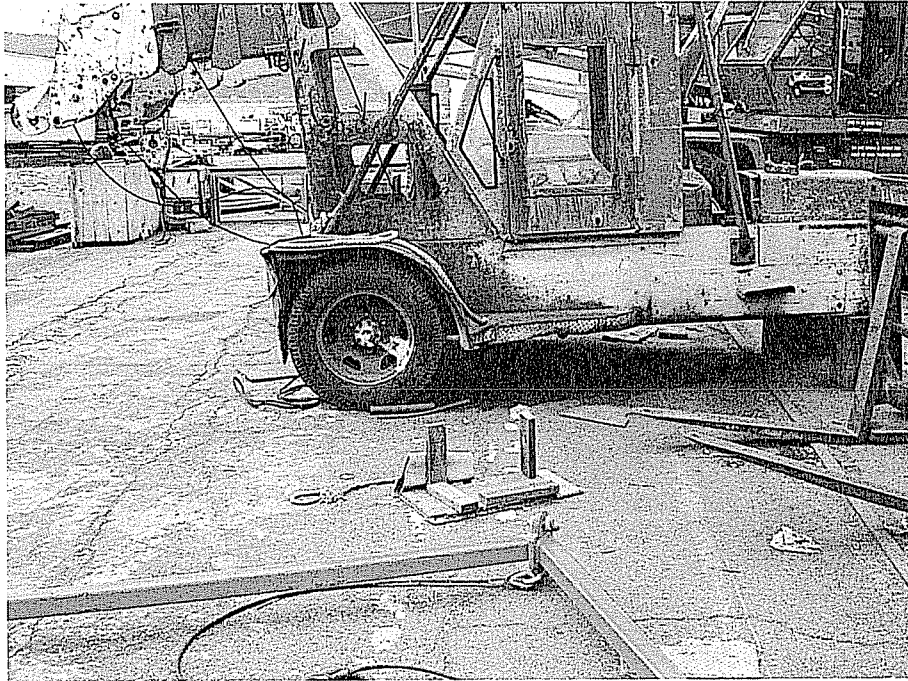


Photo No: 9

Description: Looking west at staining on asphalt beneath old equipment staged west of Building 10

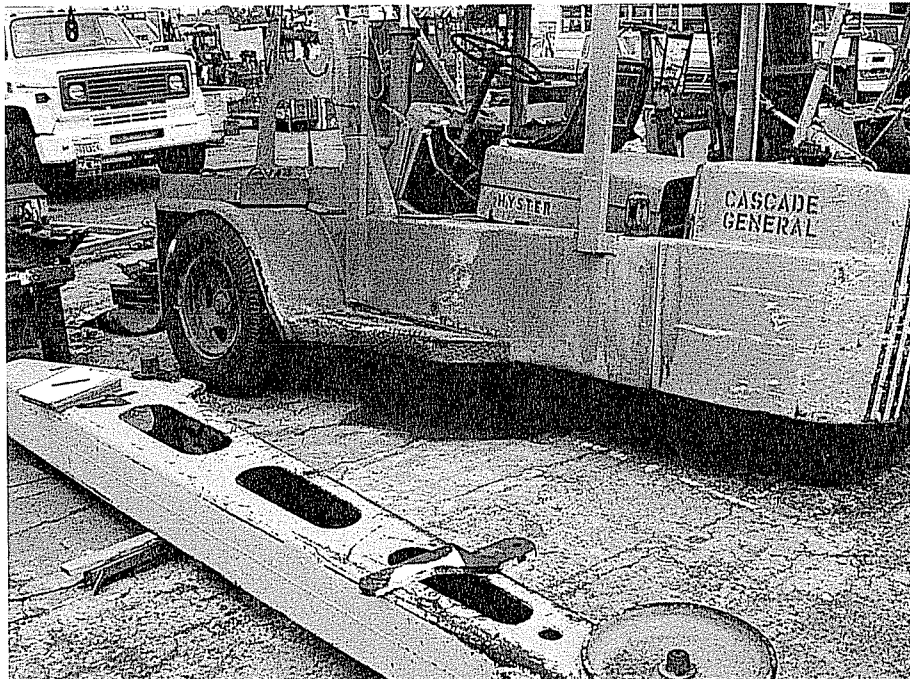


Photo No: 10

Description: Looking north at staining on asphalt beneath old equipment staged west of Building 10



Photo No. 11

Description: Looking northwest at staining on asphalt beneath equipment staged west of Building 10

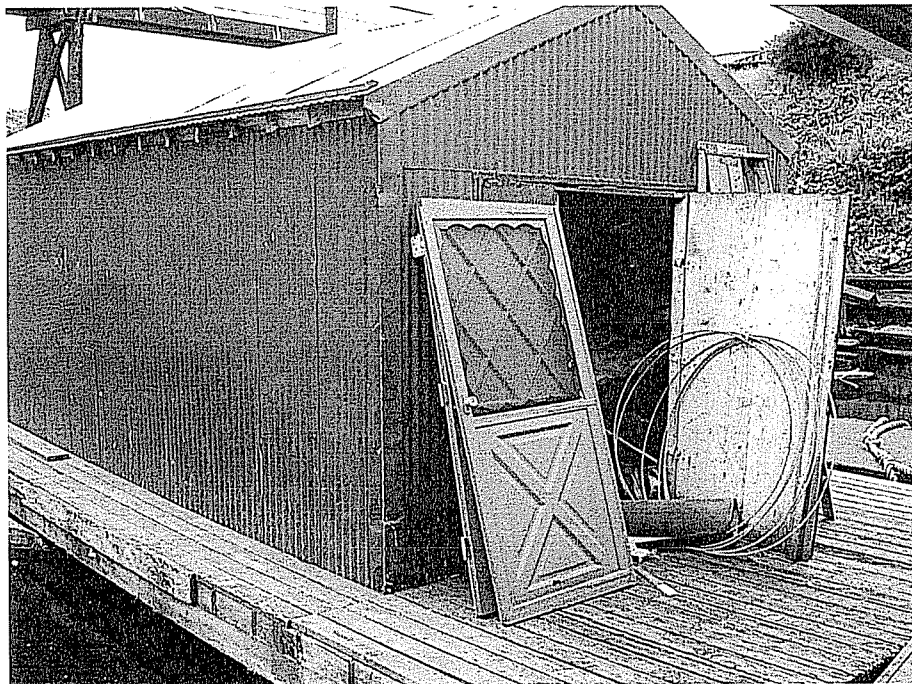


Photo No: 12

Description: Looking at floating shed used by Steelhead Construction for material storage

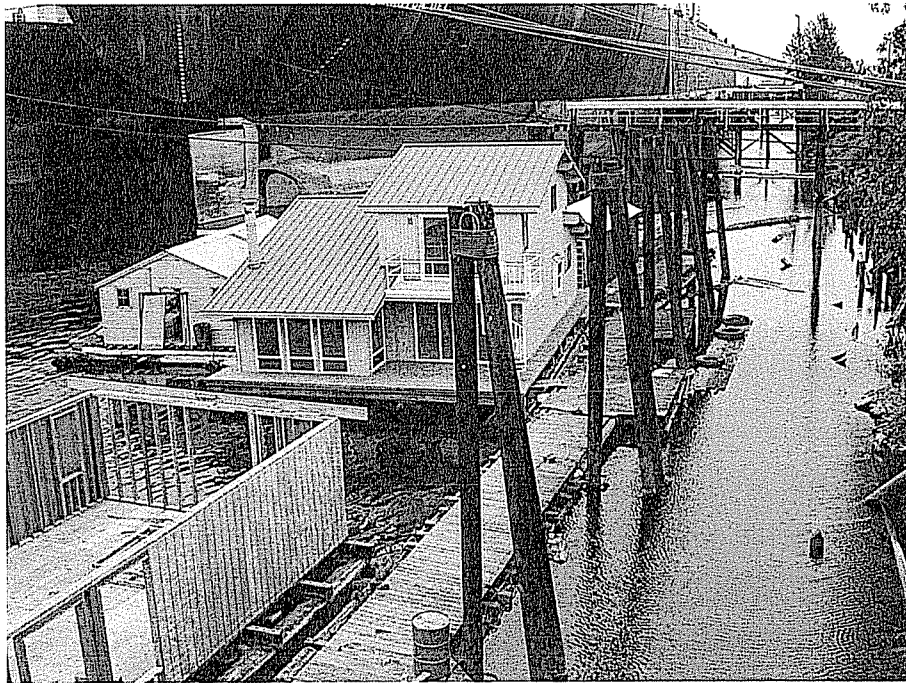


Photo No. 13

Description: Looking east down Swan Island Lagoon at Steelhead Construction work area

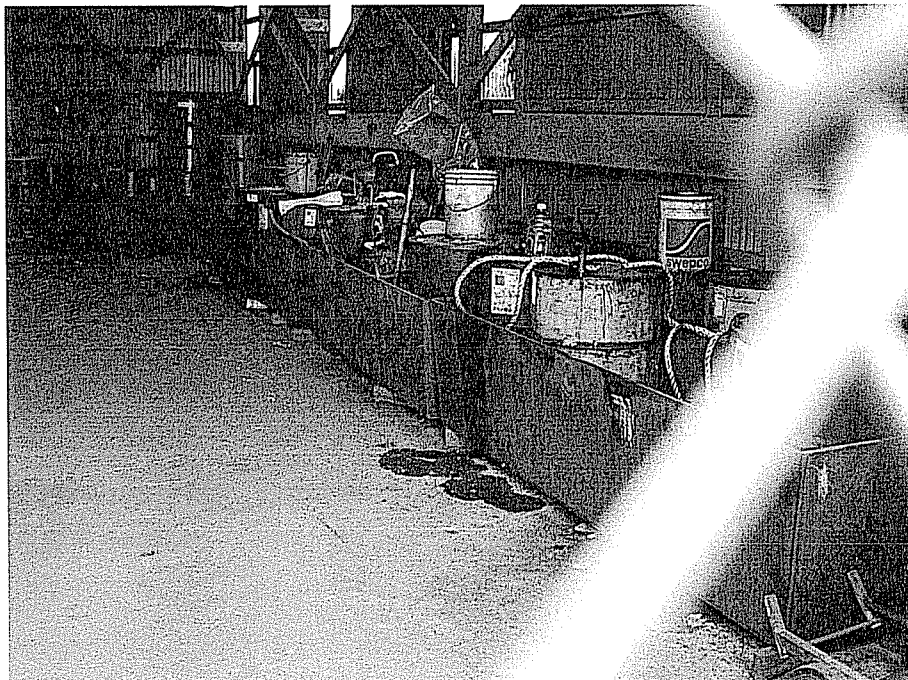


Photo No: 14

Description: Looking at staining on concrete floor in Cascade General's chemical storage shed



Photo No. 15

Description: Looking north at spilled paint on asphalt near Cascade General's spill equipment storage shed

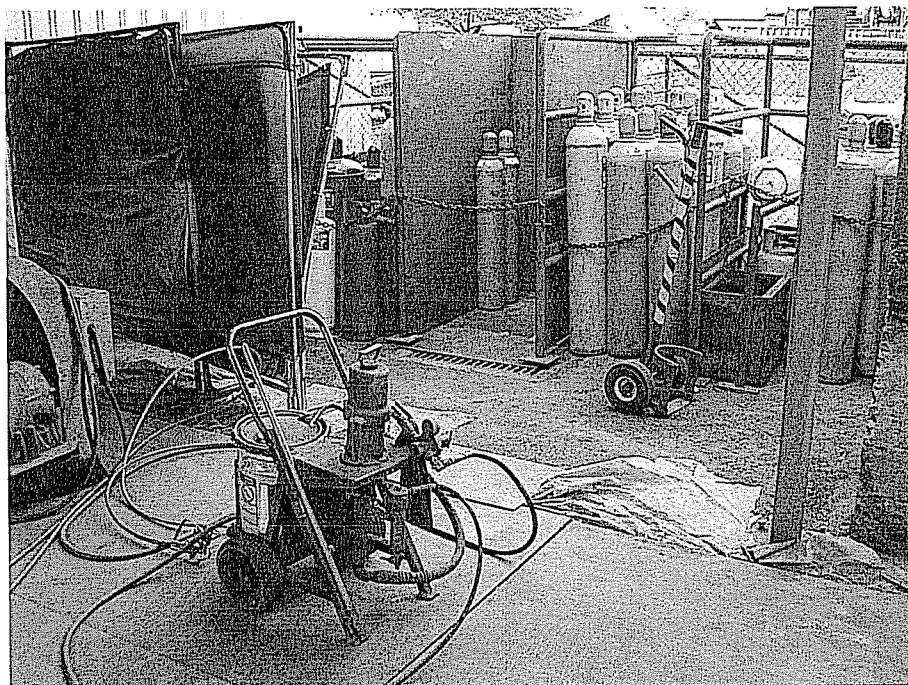


Photo No: 16

Description: Looking north at storm drain near the northeast corner of Bay 1, Building 4 where painting has been performed outdoors

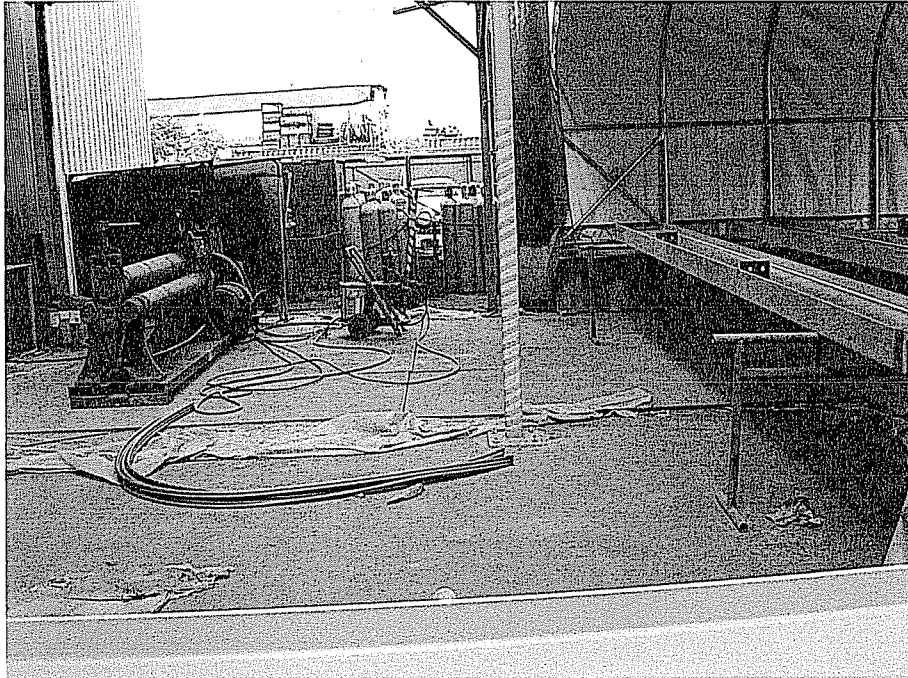


Photo No: 17

Description: Looking north at storm drain near the northeast corner of Bay 1, Building 4 where painting has been performed outdoors



Photo No: 18

Description: Looking north at staining on asphalt near the entrance to Bay 9, Building 4

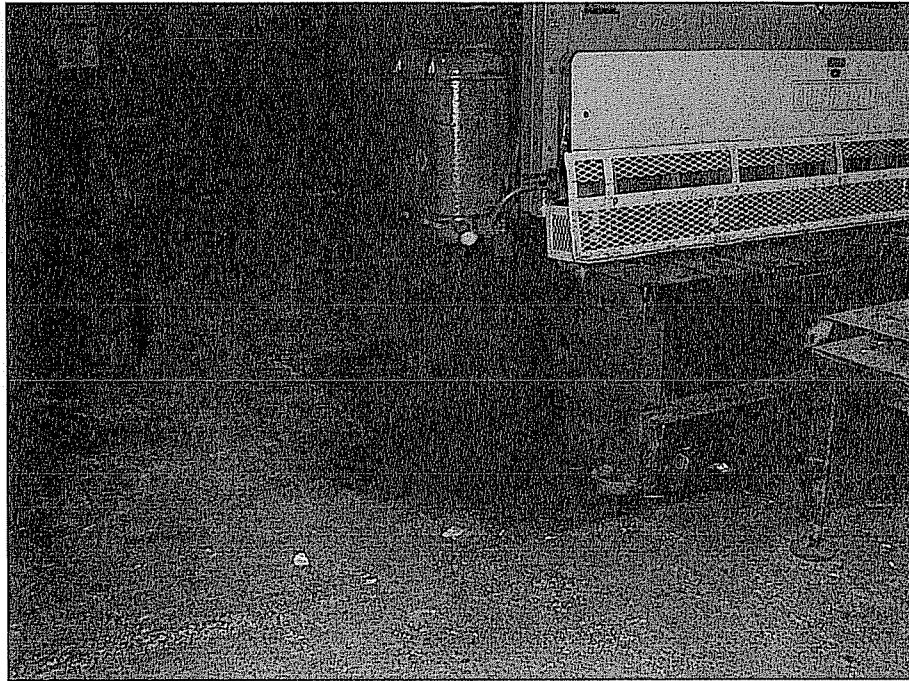


Photo No: 19

Description: Looking at staining on concrete beneath metal fabrication equipment in Bay 9, Building 4



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

January 23, 1995

Mr. Hugo Osterhaus
Certified Asbestos Abaters, Inc.
P.O. Box 10
Auburn, WA 98071

VIA FACSIMILE
and
CERTIFIED MAIL
RETURN RECEIPT
Z 004 551 922

RE: LEASE OF IMPROVED SPACE
BETWEEN THE PORT OF PORTLAND AND
CERTIFIED ASBESTOS ABATERS, INC.
PORT OF PORTLAND AGREEMENT NO. 94-139

Dear Mr. Osterhaus:

I have been informed that Certified Asbestos Abaters, Inc. is responsible for a Waste Management, Inc. container of asbestos which is located in the Berth 313/314 area of the Portland Ship Yard.

This is notice to you that this container and its contents must be removed from the Portland Ship Yard immediately.

As you have previously been informed, by letter dated January 13, 1995, your lease is terminated and any property of Certified remaining in the Portland Ship Yard after January 31, 1995 will be deemed abandoned. Any costs incurred by the Port in dealing with property not removed by Certified will be billed to you. The Port is entitled to recover attorneys' fees if necessary for collection purposes. You will remain liable for all amounts due under the Agreement without regard to its termination and Certified's obligations to the Port under the terms of the Lease shall survive termination.

Sincerely,

Suzanne L. Brooks
Contracts Administrator
Portland Ship Yard

c: Anthony Hannon

Port of Portland offices located in Portland, Oregon, U.S.A.
Chicago, Illinois; Washington, D.C.; Hong Kong; Seoul; Taipei; Tokyo

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bc: George McShea
Jeff Twine
Cory Streisinger ✓
Marie Mullins



Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

January 13, 1995

Mr. Hugo Osterhaus
Certified Asbestos Abaters, Inc.
P.O. Box 10
Auburn, WA 98071

VIA FACSIMILE
and
CERTIFIED MAIL
RETURN RECEIPT
Z 004 551 919

**NOTICE OF TERMINATION - LEASE OF IMPROVED SPACE
BETWEEN THE PORT OF PORTLAND AND
CERTIFIED ASBESTOS ABATERS, INC.
PORT OF PORTLAND AGREEMENT NO. 94-139**

Dear Mr. Osterhaus:

By certified letter dated December 28, 1994, the Port of Portland notified Certified Asbestos Abaters Inc. ("Certified") of its default under the above-referenced Lease of Improved Space (the "Agreement"). The letter stated that all amounts due must be paid by January 10, 1995 or the Port would exercise its remedies under the Lease, including termination.

Certified Asbestos Abaters Inc. failed to bring its account current by that date.

**THIS IS NOTICE TO YOU THAT THE LEASE IS TERMINATED - EFFECTIVE
IMMEDIATELY.**

The premises must be vacated immediately and returned to the Port in the condition required by the Agreement, and all keys, access cards and Port identification badges must be delivered to the Port. All property belonging to Certified which remains in the Portland Ship Yard, including any vehicles, must be removed immediately. All amounts due and owing to the Port must be paid immediately. Any property of Certified remaining in the Portland Ship Yard after January 31, 1995 will be deemed abandoned.

The amount Certified currently owes to the Port is \$4,487.86. This amount is accruing delinquency charges at the rate of 18 percent per annum. Any costs incurred by the Port in dealing with property not removed by Certified will also be billed to you. The Port is entitled to recover attorneys' fees if necessary for collection purposes. You will remain liable for all amounts due under the Agreement without regard to its termination.

Certified's obligations to the Port under the terms of the Lease shall survive termination.

Mr. Hugo Osterhaus
Certified Asbestos Abaters, Inc.
January 13, 1995
Page 2

The Port reserves all other rights available to it under the Agreement or in law or equity.

If you wish to discuss this notice, please call Suzanne Brooks at (503) 240-3012.

Sincerely,

George P. McShea, Director
Portland Ship Yard

c: Anthony Hannon

bc: Cory Streisinger ✓
Suzanne Brooks
Marie Mullins
Susie Barfield

67A.M. FEB 20 1968

SUPERVISOR OF SHIPBUILDING, U. S. NAVY

2407 11TH AVENUE W.
SEATTLE WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 460-1162
19 FEB 1968

THE PORT OF PORTLAND

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland
Subj: Contract NObs-4315, Floating Drydock YFD-69; handrails,
modification of
Ref: (a) The Port of Portland ltr of 28 Dec 1967

1. By reference (a) the Lessee requested authority to change design of the inboard, port, and starboard handrails and modify the outboard rails on the subject drydock to meet the requirements of the Department of Labor, Bureau of Labor Standards.
2. The request was forwarded to the Naval Ship Systems Command for consideration. The Naval Ship Systems Command has requested that the Port of Portland resubmit a price quotation for adding a 5" extension on all handrail stanchions, only, to meet the requirements of the Department of Labor, Bureau of Labor Standards, of 42" in height.
3. Upon receipt of this price quotation the Naval Ship Systems Command will be advised accordingly.

CEC

As I remember you
made this estimate for
MD. Please revise
estimate per above
and send this info to
MD by memo -

How
2-20-68

J. L. Mollin, Jr.
J. L. MOLLIN, JR.
By direction

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		
Aviation		
Ind. Devel.		
Marine		X
Ch Engr.	2	
Compt.		X
Personal		
Planning		
Pub. Affairs		
Sp. Projects		
Attorney		
Consultant		
No. of Copies 4		

PSY500006140

DEPARTMENT OF THE NAVY
INDUSTRIAL MANAGER USN 13TH NAVAL DISTRICT
2400 - 11TH AVENUE S. W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 1460-1171
8 Nov 1965


From: Industrial Manager, USN, 13ND Seattle
To: The Port of Portland, Portland, Oregon

Subj: Contract NObs-4315, Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69

Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3 cys)
(2) Docking Report of YFD-69 (3 cys)

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Contractor's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.

2. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


J. L. MULLIN, Jr.
By direction

Copy to: (ea w/encls (1) & (2))
BUSHIPS (Code 761D) (2 cys)
COMSERVPAC
CNO (OP-436)
Mr. H. L. Feiock - The Port of Portland

Code 1460 (10 cys)

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		X
Adm. Asst.		
Aviation		
Ind. Devel.		
Marine	2 (with atts.)	
Compt.		
Ch. Engr.		
Research & Plan		
Pub. Info		
Attorney		
No. of Copies 2 (with atts.)		

PSY500006141

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOy Lease)

REPORT BUDOCKS 11014-1
for the period ending

June - August 1965
(Month and Year)

ENCLOSURE (1)

PSY500006142

PART I General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The dry dock was self-docked completely during the period of 14 June to 26 August 1965. During the docking, repairs were made to a crack in the bottom plating between frame 58-59 "A" side, and a severe dent in the bottom plating between frames 10 - 11, "A" side. Inserts were installed and welded inside and out. Inserts were pressure tested and all welds were X-Rayed and found to be satisfactory. Repairs were made to all valves, reach rods and universals. All silt was removed from ballast tanks and tanks were cleaned, scaled and painted as necessary. See attached Docking Report for hull painting.
4. The previous material inspection of the YFD-69 was made in December 1963.
5. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member and Mr. D. L. Young, Office of the Industrial Manager, USN 13th Naval District Seattle, Washington; and Mr. H. L. Feiock of the Port of Portland. The inspection of the dry dock was conducted during the period of 14 June to 26 August 1965.
6. The following components were placed in preservation without repair at last major overhaul: None
7. The following equipment is stored ashore:

Equipment

Condition

Location

None

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Good
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Good
Utilities	(Part II 7)	Good
Miscellaneous	(Part II 8)	Good
Cleanliness		Excellent

Preservation of equipment not in use (Part I 6)

Overall Material Condition

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	Exterior			
	Pontoon			
1	Bottom (See Docking Report, Enclosure (2))	S		U
	Sides	S		U

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		U
3	Water line	S		S
4	Above Water line	S		S
5	Deck	S		S
	Wingwalls			
6	Outboard face	U		S
7	Inboard face	S		S
8	Ends	S		S
9	Deck	S		S
	Interior			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment NO. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	U		S
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 0 All silt was removed from inside of ballast compartments during the self docking.

Bridge Structure

40 Exterior)
) Not applicable
 41 Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Crane Runways		
42	Trusses)		
)		
43	Rails)	Not applicable	
)		
44	Wood Decking)		
	Connections between sections		
45	Locking Logs)		
)		
46	Joints)		
	)	Not applicable	
47	Bridges)		
)		
48	Stern Gate)		

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
49	Diesel Engines)				
)				
50	Gasoline Engines)				

4. Condition of Mechanical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition Previous</u>
51	Boiler: Date last inspected:) Not applicable				
	Date last inspected:)				
	_____)				
	Days idle since last inspection:) Not applicable				
	_____)				
52	Water Distillation Unit)				
53	Walk-in)				
54	Reach-in)				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	Pumps:				
59	Main Dewatering Pumps	8	8	S	U
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
61	Salt Water Pumps Not applicable				
62	Fuel Oil Pumps Not applicable				
63	Drainage Pumps Not applicable				
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S

Weight Handling Equipment

Cranes

Type: Not applicable

Maker:

Capacity: _____

66	Structural)	
)	
67	Electrical)	
)	
68	Mechanical	)	Not applicable
)	
69	Safety)	
)	
70	Derricks)	

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
* Generators					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
Motors					
77	AC	73	73	S	S
Switchgear					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Condition Current</u>	<u>Previous</u>
	Panelboards				
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
81	Control Boards	2	2	S	S
	Transformers				
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	U

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Condition Current</u>	<u>Previous</u>
	Blocking		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
91	Anchors)		
92	Chain)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	U
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
102	Ladders	U	S
103	Handrails	S	U
104	Platforms	S	S
105	Gratings	S	S
106	Sidewall Jacking Equipment	Not applicable	
	Pier Moorings		
107	Spuds	S	S
108	Mooring Guides	S	S
109	Alignment between Pier and Sections	S	S
110	Draft Gages	S	S
111	Davits	Not applicable	
112	Fenders	(NOTE: All fender timbers on inboard faces of both wingwalls were replaced in 1963.)	

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
	Valves and Valve Operators		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	S	S
130	Air Vent System	S	U
Heating and Ventilating System			
131	Piping and Ducts)		
)		
132	Ventilation & Exhaust Outlets)		
)		
133	Ventilation Fans		
134	Vent Valves	S	S
135	Unit Heaters)		
)		
136	Unit Convectors)		
)		
137	Heating Coils in Ballast Tanks)		
)		
138	Range Hoods and Grease Filters)		
)		
	Plumbing System)		
)		
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

Item No.	Item	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	Lighting System		
	Interior		
141	Fixtures	S	S
142	Circuits	S	S
	Exterior		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Water Level and Draft Indicator System</u>		
	Type: Pneumulator		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer: <u>Unknown</u> (date)		

151A Comparative Water Reading System

Water Level - Indicator Comparative Readings

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
1	10' - 0"	10' - 0"	0"
2	9' - 11"	9' - 11"	0"
3	9' - 10"	9' - 11"	1"
4	10' - 0"	10' - 0"	0"
5	10' - 1"	10' - 0"	1"
6	9' - 11"	9' - 11"	0"
7	10' - 1"	10' - 2"	1"
8	9' - 9"	10' - 0"	1"
9	10' - 0"	10' - 0"	0"
10	9' - 11"	9' - 11"	0"
11	10' - 1"	10' - 0"	1"
12	9' - 11"	9' - 10"	1"
13	10' - 1"	10' - 0"	1"

7. Condition of Utilities (Cont'd)

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
14	10' - 1"	10' - 0"	1"
15	10' - 0"	10' - 0"	0"
16	10' - 1"	10' - 0"	1"

	<u>Condition</u>
<u>Current</u>	<u>Previous</u>

Miscellaneous Steel Tanks

152	Fresh Water Supply)	
)	
152A	Salt Water Tanks)	
)	
153	Hot Water Storage)	
		)	Not applicable
154	Cooling Water Expansion)	
)	
155	Fuel Tanks)	
)	
156	Lube Oil Tanks		

S

S

8. Condition of Miscellaneous Installations

157	Brows (Not Navy owned)	
158	Galley and Mess Equipment	Not applicable
159	Clinometers	

S

S

S

S

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Life Saving Equipment		
160	Boats	Not applicable	
161	Life Bats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin in 21 September 1965 with River Stage at 1' - 8" elevation, are as follows:

Port Side	Forward	49'-6"
Starboard Side	Forward	49'-6"
Port Side	Amidships	51'-0"
Starboard Side	Amidships	50'-0"
Port Side	Aft	49'-6"

9. Dry Dock Basin (Cont'd)

Starboard Side Aft 49'-6"

10. Submergence Test. Test was conducted on 26 August 1965. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open -	18" Free board	1350
Stop Flooding -	25'-7" over Keel Blocks	1420
Start Pumps -	25'-7" over Keel Blocks	1455
Stop Pumps -	18" Free Board	1522

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. The dry dock was self docked and the underwater section of the Hull was inspected at this time.

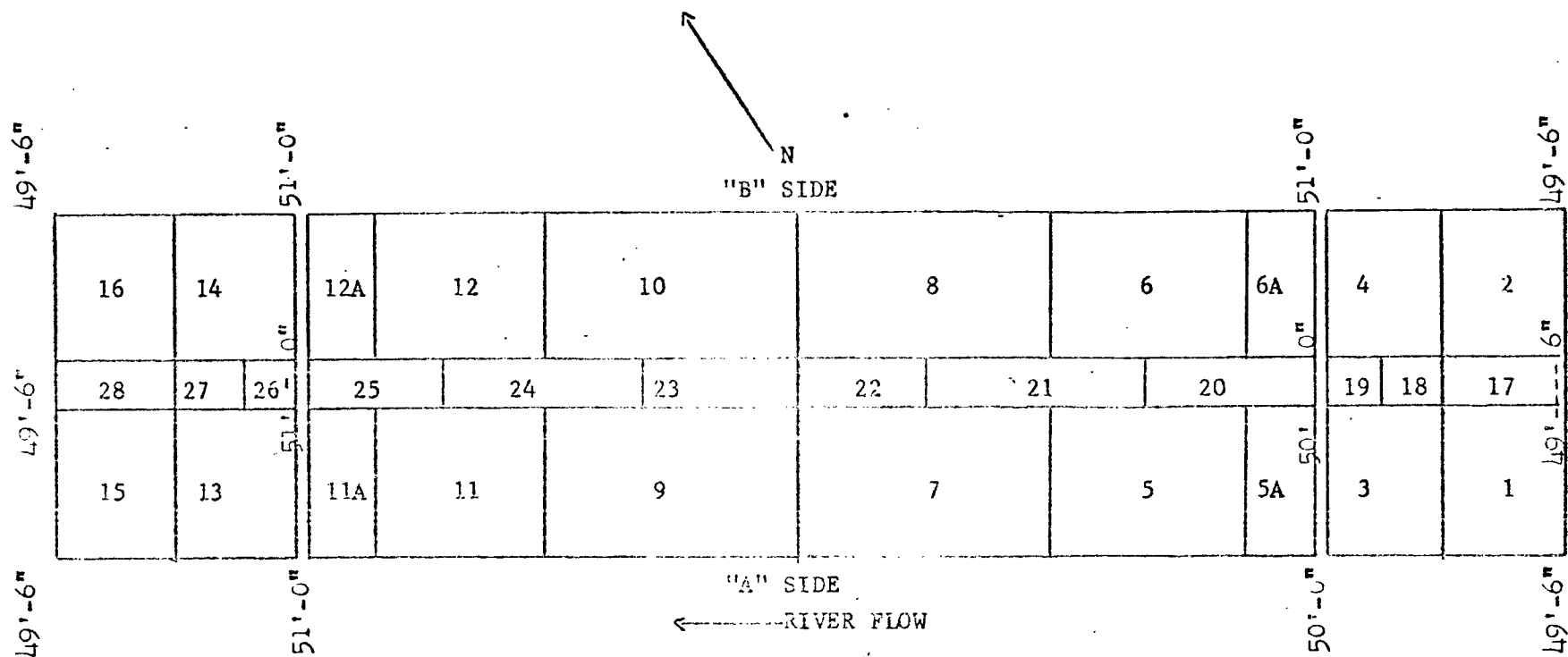
12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended: NONE

13. Improvements. The following improvements to the dock are recommended: NONE

9/21/65.

Soundings under Y.F.D. 69 River gauge 1.8'

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

ATTACHMENT NO. 2

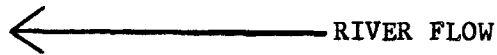


N

"B" SIDE

16			14			12A		12			10			8			6			6A		4		2	
28		27	26	25				24				23		22		21			20			19	18	17	
15			13			11A		11			9			7			5			5A		3		1	

"A" SIDE



RIVER FLOW

KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

PART III. Description of Deficiencies and Recommended Action


<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action To Be Taken</u>	<u>Estimated Cost</u>
6	Wing passage on "B" side, offshore end, has heavy build up of rust and scale.	Remove rust, clean, prime and paint.	\$500.00
33	Boyancy Chamber, Compartment #20, has water in it. Rusting is evident behind bulkhead stiffeners and along trusses.	Remove rust and apply new preservative to all rusted areas.	\$800.00
102	Ladder alongside wing passage, "B" side, outboard, is bent.	Repair bent ladder and re-weld clips as required.	\$150.00

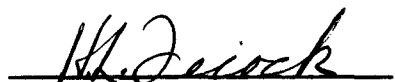
PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
2	Yes	Yes	
59	Yes	Yes	
86A	Yes	Yes	
100	Yes	Yes	
103	Yes	Yes	
130	Yes	Yes	
130	Yes	Yes	

PART V. Certification and Signatures

This report is the result of a joint inspection made by representatives of the Industrial Manager, USN, 13th Naval District and representatives of the contractor.


W. L. SETH, Senior Member
INDMAN 13ND


H. L. FELOCK, Dockmaster
Port of Portland


D. L. YOUNG, Member
INDMAN 13ND

FROM: THE PORT OF PORTLAND DATE August 30, 1965

TO: COMMANDING OFFICER, ~~USS~~ INDMAN

PLACE DOCKED DATE DOCKED DATE UNDOCKED POSITION NUMBER THIS DOCKING
Portland, Oregon 6/7/65 8/23/65 DIST. S.R.P. TO AFTMOST KEEL BLOCK

DOCKING AN NUMBER PLAN NUMBERS FOR ZINCS OR CATHODIC PROTECTION REASON FOR DOCKING
296141 & 365710 Inspection & Painting

SHAFTS SHAFT DIAMETER DESIGN CLEARANCE MAXIMUM ALLOWANCE CLEARANCE READINGS TAKEN BY

BEARING CLEARANCES WHEN DOCKED	STERN TUBE		INTERMEDIATE STRUT		MAIN STRUT		SERIAL NO.	NO. BL.	PROPELLERS
	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT			
NO. 1 OR STBD. OUTBD.									INBD. DIA.
NO. 2 OR STBD. INBD.									PITCH
NO. 3 OR PORT INBD.									OUTBD. DIA.
NO. 4 OR PORT OUTBD.									PITCH
BEARING MATERIAL									MATERIAL INB'D OUTB'D

CONDITION OF SHAFTING AND MATERIAL INB'D PLAN NO. AND REVISION
OUTB'D.

RUDDER AND DIVING PLANES PORT STARBOARD CENTER LINE SONAR REMOVED THIS DOCKING
POST DIAMETER IN. IN. IN. DOME TYPE SERIAL

BEARING CLEARANCE PORT STARBOARD CENTER LINE IN. IN. IN.

SONAR EXISTING AT UNDOCKING SERIAL WORK DONE—INCLUDE PRINTING
DOME TYPE

COATING APPLICATIONS ACCOMPLISHED THIS DOCKING

BOTTOM	One coat #117, two coats #119, two coats #119D, two coats #129
BOOT TOPPING	No painting above 17'-8" draft. Same coatings except final two coats grey between 16'-8" and 17'-8".
RUDDERS AND STRUTS	
SHAFTING	
TANKS	Touchup of ballast tanks using Lagotex #599

REMARKS: Docked center section 6/7/65
Undocked center section 6/18/65
Docked end sections 6/22/65
Strike 7/2/65 to 8/22/65
Undocked end sections 8/23/65
Dock assembled and in service 8/26/65

SIGNATURE *[Signature]* NAME, CLASS AND NUMBER OF SHIP
YFD-69 Floating Drydock

DOCKING REPORT

ENCLOSURE (2)

PSY500006169

U. S. Navy 14,000 Ton Steel
Floating Drydock (YFD-69)

JOB ORDER NO.

ITEM
NO. WORK
REQUEST

UNDERWATER PAINTING AND REPAIRS

(Blackletter)

A. SCOPE: Sandblast and paint under water body. Repair valves. Conduct hull survey. Apply flotation compound, renew zincs.

B. TECHNICAL MANUALS AND/OR INSTRUCTION BOOKS:

1. Chapter 19 (Rev. 10/15/60) of BUSHIPS Technical Manual (INDMAN Office).
2. BUSHIP'S Instruction 9190.6A (INDMAN Office)

C. MATERIAL:

1. Government furnished: None
2. Material certification required on the following items:
Zincs (MIL-A-18001-B)

D. WRITTEN REPORTS REQUIRED

1. Hull survey
2. Hull inspection
3. Complete list of all work accomplished in connection with sea valves, sea stools and sea chests shall be included in dry docking report.
4. Dry Docking report.

E. PERTINENT INFORMATION:

1. YFD 69 - 14000 tons
2. Length of pontoon 528' - 0"
3. Length over outriggers 598 - 0"
4. Breadth overall 118 - 0"
5. Breadth between sidewalls 90' - 0"
6. Height overall 52' - 2"
7. Last drydocking Aug. 1954

F. DETAIL:

1. Thoroughly fill out, and deliver to INDMAN Inspector, one (1) copy of docking report for approval. Upon approval, deliver to INDMAN Office five (5) completed copies of docking reports for Inspector's signature. Docking report forms will be provided by INDMAN Office.
2. Block all drains and scuppers to prevent any liquids from running down hull of ship.
3. Remove all (bolted and welded) sea chest strainers.
4. Sandblasting:
 - a. The areas and amount of sandblasting and painting to be accomplished, shall be determined by INDMAN Inspector upon dry docking of dry dock.
 - b. Sandblast the end pontoon outriggers (aprons) steel structure.
 - c. Sand blast approximately 1000 areas, (six inches in diameter) in locations as directed by INDMAN Inspector.
 - d. Dry or wet sandblasting to be accomplished in accordance with paragraph 19.27 of Chapter 19 of BUSHIPS Technical Manual.
 - e. Dust off powder formed by rust inhibitor prior to painting.
 - f. Precaution and care shall be taken during the sandblasting operations to prevent sand from entering deck machinery, seawalves, overboard scuppers or interior of ship.

U. S. Navy 14,000 Ton Steel
 Floating Drydock (YFD-69)

JOB ORDER NO.

ITEM
NO. WORK
REQUEST

UNDERWATER PAINTING AND REPAIRS

(Blackletter)

5. Inspection:

a. Inspect underwater hull and compartments, which are accessible for inspection only during drydocking period, for damage, leaks, pits and deterioration in way of plating, welded and riveted seams and hull connections. Make written report of findings.

b. Conduct a survey of hull plating thickness in approximately 1000 locations as indicated by INDMAN Inspector. Survey to be a non-destructive type, similar and equal to Pulse Echo Ultragraph. Possible source of Pulse Echo Ultragraph Survey is Industrial Xray, 6561 67th Avenue South, Seattle, Washington, Phone PA 2-6875. After completion of survey submit a written report, showing comparison between original and existing plate thickness. Report to show location of each test with regards to Frame, Side and Strake. Survey to be conducted after sandblasting and prior to first coat of anticorrosive, Formula #14.

6. Painting:

a. Paint sandblasted area below lower boottop area, sea chests and sea chest strainers as follows:

- (1) One (1) coat of Formula #117.
- (2) Two (2) coats of Formula #14 and one (1) coat of Formula #14 D, applied alternately.

(3) One (1) coat of Formula #15 HP.

b. Paint boottop area as follows:

- (1) One (1) coat of Formula #117.
- (2) Two (2) coats of Formula #14 and one (1) coat of Formula #14D, applied alternately.

(3) Three (3) coats of Formula #146/50.

c. Paint draft figures, ship's numbers and letters and overload draft marks with two (2) coats of Formula #6. As required.

d. Dry Film Thickness for paint formulas.

- (1) Formula #6 - 1 MIL (each coat).
- (2) Formula #14 - 1.5 MILS (each coat).
- (3) Formula #14D - 1.5 MILS (each coat).
- (4) Formula #15HP - 30 MILS.
- (5) Formula #117 - 0.5 MILS.
- (6) Formula #146/50 - 3.5 MILS (each coat).

e. Eight (8) hours drying time required between each coat of paint, except between wash primer pretreatment and first coat of anti-corrosive. Drying time to start after completion of previous coat of paint. Each coat of paint to be applied to 100% of area to be painted, prior to starting next coat of paint, no partial coat of paint permitted. Specific approval of INDMAN Inspector shall be obtained prior to application of any coat of paint. Final coat of boottopping to be allowed to dry twenty-four (24) hours before undocking of vessel.

f. No paint shall be applied during wet weather or when the surfaces to be painted are damp or wet or when the temperature is 35° or lower.

JOB ORDER NO.

UNDERWATER PAINTING AND REPAIRS

(Blackletter)

7. Underwater repairs:

- 3

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
SEATTLE, WASHINGTON 98115

630-4.1
action: DN Resub
w/CF Propels
IN REPLY REFER TO:
11420 BT Freeman
Ser 460-688
26 MAR 1973

'73 MAR 28 AM 7:40

FILE

THE PORT OF PORTLAND
From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland

Subj: Floating Drydock Lease Agreements that provide for a
minimum dollar expenditure for normal maintenance and
repair; clarification of

1. Lease Agreements require the Lessee to make not less than a specified minimum dollar expenditure for normal maintenance and repair during each annual period of the lease term. The actual items of maintenance and repairs allowed toward satisfying the minimum are subject to the approval of, or as may be directed by, the Department of the Navy.
2. The minimum maintenance provision provides that if the Lessee does not expend the amount specified as minimum normal maintenance, the Contracting Officer determines whether the unexpended balance shall be paid in cash as additional rent or be carried over for the succeeding year of the term. Unexpended balances of the minimum normal maintenance obligation will be paid as additional cash rent, unless there are exceptional reasons to deviate therefrom. Such exceptional cases would be those agreed to by the Contracting Officer well in advance of the end of the annual period involved, or a circumstance where an approved item of maintenance or repair is delayed because of late or non-delivery of material ordered well in advance of the end of the period.

R. A. Brinker
R. A. BRINKER
By direction

Copy to:
NAVSHIPSYSCOM (Code 705)
DCAA Seattle

PSY500006173

FRED DEVINE DIVING & SALVAGE CO., INC.

Operating the M. V. Salvage Chief

RECEIVED
TELEPHONE: PORTLAND 255-7082, ASTORIA 325-4372

MAY 10 8 20 AM '71
3405 N.E. 82nd AVENUE

THE PORT OF
PORTLAND, OREGON 97220

DIVER'S REPORT

Surveyed SWAN ISLAND NAVY DRYDOCK

Requested by PORT OF PORTLAND

Nature of Accident

Survey Started 0800 MAY 12, 1971 Completed 1630 MAY 12, 1971

Condition of Water LIGHT NEEDED FOR VISIBILITY

REMARKS

I made an underwater examination of the underwater portion of the above named drydock, starting at the bow and moving toward the stern in six foot increments along a rope. The rope was moved after each pass by men on the surface.

Irregularities in the condition of the drydock are as follows:

1. The bow and stern aprons are generally in good condition except for periodic rust spots.
2. Approximately eight feet astern from the bow near the center of the pontoon there is a set-up approximately one and one-half inches deep, two feet wide and three feet long.
3. Approximately three-hundred fifty-five feet astern from the bow near the center of the drydock there is a dent approximately one foot in diameter and one inch deep.
4. Approximately five-hundred feet astern from the bow near the center of the drydock there is a dent approximately one foot in diameter and one inch deep.
5. The area inway of the blocks used during the last drydocking was found to be rusting and some pitting was visible around the circumference of each block.
6. Approximately sixty feet astern of the bow near the center of the drydock there are two three foot circles of rust which appear to have been made by welding on the inside of the drydock. There is also a similar ring of rust twenty feet aft of the bow.

The only detectable difference in the condition of the drydock since my last survey in November of 1967 is the slight pitting around the circumference of the areas where the bilge and keel blocks rested during the last drydocking. The drydocking slots are also rusting.

I hereby certify to the above statements being true to the best of my belief.

Ken Dye

MARINE DIVER

W. K. DYE

KLIP STATIONERS

Enclosure (2)

PSY500006174

DMC:hk

To: DD-200

24 May 1956

From: D. M. Caddell

Navy-owned Floating Drydock YFD-69, NOy-19744; availability of spare Cutler-Hammer Valve Operators in event of emergency

Ref: (a) Port of Portland ltr of 27 Dec 1955 to D. M. Caddell
(b) BUDOCKS ltr ref C 214E/SS of 1 Dec 1955 to Dist. List

Encl: (1) Information sheets prepared by Mr. H. Davis of Port of Portland for D. M. Caddell
(2) Envelope with 9 Cutler-Hammer publications showing parts and part No. for the A types of valve operators

1. On the subject drydock and the AFDM-6, both are Navy-owned and located in the Thirteenth Naval District. There are 44 Cutler-Hammer motorized valves and are used when docking and undocking of ships.

2. On the YFD-69 there are four types of Cutler-Hammer valve operators and are listed in enclosure (1), which was prepared by Mr. Hal Davis, Electrical Superintendent of the Port of Portland. Mr. Davis takes great pride in maintaining all parts of the drydock in which there is any electrical connections. He also states his reasons why it would be advisable to have one each of the four types available in the Thirteenth Naval District in case of an emergency.

3. During the Material inspection of the YFD-69, I requested Mr. Davis to check over the spare parts furnished by the Government for use on the drydock. Reference (a) states that we (Port of Portland) have checked the inventory of the YFD-69 drydock spare parts for the Cutler-Hammer Valve Operator units. The spare parts lists for the AFDM-6 which was prepared by the Todd Shipyard Corporation in 1951, was reviewed and the spare parts for the Cutler-Hammer valve operator for this Navy-owned dock, was very limited.

4. The Puget Sound Naval Shipyard was contacted by telephone as to the availability of these types valve operators (Cutler-Hammer) in event of an emergency. The technical section of the Supply Department advised that none were available at that activity or not listed in BUSHIPS' catalogs.

5. The Seattle office of the Cutler-Hammer Company was contacted as to the availability of spare parts, complete units, estimated costs, delivery dates and renewal parts publications. The local office of the Cutler-Hammer Company advised that the spare parts and complete units would be available only at their manufacturing plant in Milwaukee, Wisconsin. This plant submitted the following information:

Delivery dates of parts, if standard	- - 2 weeks
Delivery dates of complete units	- - 8 weeks

PSY500006175

Estimated cost of	TN5Y	30"	Rising Stem	-	-	\$1220.00 each
"	"	"	30" Nonrising Stem	-	-	1220.00 each
"	"	TN3Y	18" " "	-	-	915.00 each
"	"	"	18" Rising Stem	-	-	915.00 each

6. In case of an electrical failure on any of the 44 motor-operated valves, the valves can be operated by hand control. However, if any of the mechanical parts of the valve operator become defective, there is a possibility of the drydock being inoperative until new parts could be obtained. Cutler-Hammer Publication No. 8431, part of enclosure (2), shows each valve operator consists of over 100 parts.

7. It is recommended that a letter be prepared and forwarded to BUDOCKS with the following proposals:

a. Obtain the Bureau's opinion of having one each of the four types of valve operators made available and stored with the rest of the Navy-owned spare parts for the YFD-69.

b. If the above is not favorable, request that BUDOCKS advise the Officer in Charge of Construction, Thirteenth Naval District, if the types and sizes shown in enclosure (1) are available in event of an emergency. If so, where are they located? Reference (b) paragraph 7, mentions that there are known storehouses that have spare parts for Floating Drydocks.

D. M. CADDELL

Carl H. Papp

December 17, 1969

Department of the Navy
Naval Ship Systems Command
Code 07511
Waverley Building
4630 Montgomery Avenue
Washington, D. C.

Attention: Mr. H. R. Benson

Gentlemen:

Mr. Bauer and I appreciated very much the time spent with us on December 4 reviewing the various items to be resolved as a part of our renewal of the lease for YFD-69. As indicated in the telephone conversation with Mr. Holland last week, it would be helpful if you would furnish us, prior to our next meeting, with a draft of the proposed Special Provisions omitting money amounts still under discussion. This will give us an opportunity to compare it with our notes prior to our meeting which we have suggested for the week of January 12. Also, you advised us that we would be given revised copies of Articles 27, 28, 29 and 30 of the General Provisions.

As previously indicated, our Dockmaster prepared an estimate for drydocking the YFD which totals \$14,918. On this basis we submitted the offer of \$16,000, equal to the actual costs in 1965, for omitting the requirement of self-docking during the current contract extension.

Attached is copy of letter dated January 12, 1966 submitting data requested by your Seattle office at that time. Included in the letter is a resume of the cost for self-docking and repairs accomplished during the summer of 1965.

Also attached is a summary schedule of a project established to accumulate the costs of self-docking and performing the cleaning and repairs, which project was in accordance with our usual procedure for cost accounting purposes. Under the aforementioned project, a shop order was set up for services performed by ship repair yard employees including costs of the self-docking operation, sand removal and equipment repairs. The breakdown of the labor

PSY500006177

Department of the Navy
December 17, 1969
Page 2

costs of self-docking, etc. was recorded on time slips from which the ship repair yard chief clerk was able to supply the information submitted with our letter of January 12. The aforementioned time slips are no longer available because they are retained for only two years, which is the normal period of retention for audit purposes.

We still have the ledger card on the project recording the origin of the charges, which entries are supported by basic documents and are summarized on schedule No. 1 attached.

In regard to the minimum rental amount, an additional factor which was not brought out at the discussions on December 4 and could have a major affect on the ship repair activities is discussed in the attached letter of December 8 to Mr. Andrew Gibson, Maritime Administrator. Your staff mentioned the possible benefits to be gained by the stepped-up program for replacement ships. However, as pointed out, the newer vessels do not require the amount of repairs that the older vessels have needed to keep them in operating condition during the Vietnam conflict. We call to your attention the statement in the attached letter which indicates it is not proposed to include vessel maintenance as a part of the subsidy program. We feel that the minimum rental must be realistic and supported by potential activity. We will be prepared to submit additional evidence in support of our position at our next meeting.

We are preparing a separate letter to your Seattle office covering the major rebuilding, replacement and repair items to be covered under paragraph 6(c) of our current contract.

We wish you and others on your staff the best of everything for the coming holiday season and look forward to meeting with you again in January.

Very truly yours,

THE PORT OF PORTLAND

ORIGINAL SIGNED BY

A. J. HEINEMAN

A. J. Heineman

Assistant General Manager

AJH/EWB:mc

Attachments - 3

cc: Supervisor of Shipbuilding, Conversion & Repair
Seattle, Washington

bcc: O. Beeman
E. W. Bauer
Lofton Tatum
Carl Propp

PSY500006178

87-B(1)

January 12, 1966

Industrial Manager
13th U. S. Naval District
2400 11th Avenue, S. W.
Seattle, Washington 98134

Attention: Mr. J. L. Mullin, Jr., Contract and Materials Officer

Gentlemen:

REFERENCE: NObs-4315 - Ser 1460-1573 - Your Letter of December 23,
1965 - YFD-69

SUBJECT: BUSHIPS ltr ser 761A-308, December 20, 1965

The information requested in the subject letter is as follows:

1.(i)(ii) The attached schedule of costs for YFD-69 includes both annual normal maintenance and operating costs for the fiscal years 1960-61 through 1964-65, ending June 30. We believe the schedule is self-explanatory. However, since the Port of Portland is a municipal corporation, no provision is made in the statement of costs for personal or ad valorem taxes. Furthermore, it should be noted that interest on investment and such other costs also are not included.

1.(iii) The self-docking and repairs to YFD-69 were accomplished in the summer of 1965, and the costs were as follows:

Repairs:

Contract Cost (Painting and Repairs)	\$69,000	
Port Personnel and Supplies	<u>6,048</u>	\$ 75,048
Inspection by Port Personnel		2,067
Material Testing		130
Sand Removal		6,832

Industrial Manager, 13th U. S. Naval District
January 12, 1966
Page 2

Self-Docking:

Port Labor	\$13,763	
Use of Tug Boats	2,282	
Supplies	<u>167</u>	<u>\$ 16,212</u>
Total		\$100,289

2. The total investment in the berth and shoreside facilities (pier, crane, etc.) for YPD-69 is \$1,330,000.

If you need information on the data included herein or any other additional information, please let us know.

Sincerely,

THE PORT OF PORTLAND



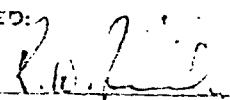
E. W. BAUER
Comptroller

EWB:eh for Contract File

cc: INDMAN

BCC: A. J. Heineman

NOTED:


ACCOUNTING DEPT.

THE PORT OF PORTLAND
SCHEDULE OF COSTS - YFD-69
FISCAL YEARS 1960-61 THROUGH 1964-65

	1960-61		1961-62		1962-63		1963-64		1964-65	
	<u>Detail</u>	<u>Subtotal</u>	<u>Detail</u>	<u>Subtotal</u>	<u>Detail</u>	<u>Subtotal</u>	<u>Detail</u>	<u>Subtotal</u>	<u>Detail</u>	<u>Subtotal</u>
<u>OPERATING EXPENSE:</u>										
Labor	\$28,780.87		\$31,403.03		\$29,521.33		\$25,602.91		\$25,745.15	
Materials & Supplies	70.83		465.49		1,310.72		58.10			
Power & Light	3,236.00		3,216.31		4,031.81		2,937.60		3,326.86	
Water	1,670.95		1,687.27		1,151.41		701.86		529.75	
Insurance	26,745.73		26,370.96		25,868.88		25,528.62		25,532.13	
Rent	108,053.95		109,949.28		98,478.33		112,977.97		91,666.65	
¹ Deferred Maintenance	<u>6,000.00</u>	174,558.33	<u>6,000.00</u>	179,092.34	<u>6,000.00</u>	166,362.48		167,807.06		146,800.54
² <u>MAINTENANCE EXPENSE:</u>										
Labor	16,982.77		17,712.85		19,286.20		22,100.51		18,343.82	
Materials & Supplies	5,626.37		4,277.19		4,035.73		3,850.30		7,381.38	
Outside Services	<u>1,620.72</u>	24,229.86	<u>513.51</u>	22,503.55	<u>711.40</u>	24,033.33	<u>804.20</u>	26,755.01	<u>293.40</u>	26,018.60
<u>MAINTENANCE & OPERATING EXPENSE ALLOCATED:</u>										
Crane Service	7,670.93		25,328.04		22,930.58		18,715.24		13,762.63	
Compressed Air	11,280.16		10,704.32		7,430.24		5,279.13		5,025.07	
Electrical Distribution	<u>6,942.73</u>	25,893.82	<u>6,895.61</u>	42,927.97	<u>4,741.07</u>	35,101.89	<u>5,242.95</u>	29,237.32	<u>4,945.94</u>	23,733.64
³ <u>GENERAL & ADMINISTRATIVE EXPENSE</u>		88,442.23		123,075.76		135,634.08		109,418.75		128,004.69
<u>DEPRECIATION OF SHORE FACILITIES</u>		<u>27,849.72</u>		<u>26,324.14</u>		<u>26,488.55</u>		<u>29,010.86</u>		<u>28,901.04</u>
TOTAL EXPENSE		<u>340,973.96</u>		<u>393,923.76</u>		<u>387,620.33</u>		<u>362,229.00</u>		<u>353,458.51</u>

¹Provision for quinquennial self-docking and maintenance.

²Does not include quinquennial maintenance costs.

³Includes plant protection, clerical, etc., and prorated share of Port General & Administrative Expense.

1/7/66

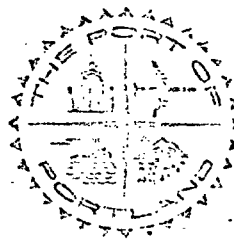
PSY500006181

THE PORT OF PORTLAND
SUMMARY SELF-DOCKING YFD-69 AND REPAIR COSTS
1965

Project No. 3143A - Totals			Contract Repairs & Painting			Preparations, Self-docking & Repairs	
Reference	Labor	Materials Contract and Other	Direct Labor	Materials Contract and Other	Engring. Inspection Labor	Materials and Other	Shipyard Labor Shop Order 4660 B
<u>May</u>							
JV 5.01	\$.50	\$	\$	\$	\$.50	\$	\$
JV 5.16	562.32	7.14				7.14	562.32
P/R	44.44				44.44		
<u>June</u>							
JV 6.01	34.57				34.57		
JV 6.16	18,528.08	146.79				146.79	18,528.08
P/R	1,468.68				1,468.68		
VR		2,281.10		483.45		1,797.65	
JV 6.24		296.15				296.15	
<u>July</u>							
JV 7.01	13.47				13.47		
JV 7.16	1,445.24						1,445.24
P/R	447.52		318.41		129.11		
VR		56,642.31		56,642.31			
<u>August</u>							
JV 8.01	11.77				11.77		
JV 8.16	4,001.81						4,001.81
JV 8.24		187.97				187.97	
P/R	417.40		310.61		106.79		
<u>September</u>							
JV 9.01	2.45				2.45		
JV 9.16	412.55	13.06				13.06	412.55
P/R	95.91				95.91		
VR		130.00		130.00			
<u>October</u>							
JV 10.01	1.60				1.60		
P/R	71.37				71.37		
VR		12,995.10		12,995.10			
<u>November</u>							
JV 11.01	.70				.70		
P/R	29.92				29.92		
Subtotals	<u>\$27,590.30</u>	<u>\$72,699.62</u>	<u>\$629.02</u>	<u>\$70,250.86</u>	<u>\$2,011.28</u>	<u>\$2,448.76</u>	<u>\$24,950.00</u>
Grand Total	<u>\$100,289.92</u>			<u>\$72,891.16</u>		<u>\$2,448.76</u>	<u>\$24,950.00*</u>

JV - Journal Voucher
P/R - Payroll costs
VR - Voucher Register

*Distributed to self-docking operation, sand removal and repairs from basic time slips for letter of 1/12/66



Box 3529 Portland, Oregon 97208 (503) 224-4260

December 8, 1969

Mr. Andrew Gibson
Maritime Administrator
U. S. Department of Commerce
Washington, D. C.

Dear Mr. Gibson:

This letter is in response to the invitation of the Secretary of Commerce, Mr. Stans, to address comments regarding the new maritime program to you as Maritime Administrator.

In the first place may I say that it is a program which on the whole merits and will receive our complete support and cooperation.

There are two aspects of the program which are of particular interest to The Port of Portland; the first is the proposed complete elimination of subsidies for maintenance and repair of ships, and the second is the matter of port development as related to improved port operations and transportation.

As you know, The Port of Portland owns and operates the Swan Island Ship Repair Yard. Ship repair work at this yard is performed by private contractors including Albina Engine & Machine Works (a Dillingham subsidiary), Northwest Marine Iron Works, and Willamette Iron & Steel Co. (a Guy F. Atkinson subsidiary). Our yard and facilities, including three floating dry docks (14,000 tons, 18,000 tons, 27,000 tons) are exclusively for conversion and repair work and no new ship construction is undertaken. Our present investment in the yard and facilities is approximately \$20,000,000 including land and this is being constantly added to in order to increase capacity and efficiency.

It is our fear that the complete elimination of the subsidy would create a challenge to the ship repair industry in general which could not be met. We believe the increased costs would serve to discourage ship owners from operating a properly maintained fleet, with important repair work being put off until it becomes emergency work. This could be the first step toward having the work accomplished in foreign shipyards.

Mr. Andrew Gibson
December 2, 1969
Page 2

We are particularly concerned because of our belief that elimination of the operating differential subsidy for repair work would lead to a further drain of work from the already depressed Pacific Coast ship repair industry. Ship repair yards are vital assets to the defense and commerce of this nation. They have proved their worth in times of extreme emergency. It would certainly not be to the advantage of this nation to have the major portion of this important industry disappear from the Pacific Coast.

We therefore recommend that:

1. A provision be included to continue operating subsidies for maintenance and repair of merchant ships as presently provided under Section 603 (B) of the Merchant Marine Act of 1936.
2. The proposed Commission to review the status of the American shipbuilding industry have at least one member identified particularly with the ship repair industry on the West Coast. We would be pleased to submit a nomination for this Commission if desired.

The Port of Portland has a broad interest and involvement in the overall transportation system, including all modes, because of its ownership and operation of the Portland International Airport, Portland-Troutdale Airport, and Portland-Hillsboro Airport, the Rivergate Industrial District, (3,000 acres) and the Swan Island Industrial Park (600 acres). Furthermore, as you know, the Port is also involved with your agency and the Port of Astoria in investigating the possible future development and use of your agency's property at Astoria and its relationship to an improved transportation system for the whole lower Columbia River area from Portland to the sea.

We feel that because of the many involvements noted which include both responsibility and authority, we are in a unique position to research, plan and implement innovations in the interchange of cargo between the various modes of transportation, and in the utilization of a major river which is being improved for navigation both in length and depth. As our program is developed, we shall look forward to a continued close liaison with your agency and the availability of the advice and technological information which will assist us in improving the region's transportation system. We earnestly solicit your suggestions at any time.

There is another aspect to this program which is of particular interest to the whole Pacific Northwest. As you are aware, there is a dearth of

Mr. Andrew Gibson
December 2, 1969
Page 3

American Flag service to the North Pacific and it is our hope that as a part of the new program some consideration will be given to a revitalization of this service without adversely affecting other areas.

In closing, I would like to repeat again the invitation for a visit which I extended to you during the American Association of Port Authorities luncheon in Washington last April. We would certainly welcome the opportunity to show you the area and its transportation facilities and to tell you of some of our "dreams" for the future, which we are working to turn into realities.

Sincerely,

THE PORT OF PORTLAND

Original signed by
GEORGE M. BALDWIN
George M. Baldwin
General Manager

cc: Mr. Paul Amundsen
American Association of Port Authorities

bcc: Mr. Arthur Farr
Northwest Marine Iron Works

The Port of Portland Commission (with President Nixon's national
maritime policy proposal attached)



THE SECRETARY OF COMMERCE
WASHINGTON 25, D.C.

~~WGP~~
WGP

On October 23 President Nixon sent to Congress the most dynamic proposal for a new national maritime policy since the end of World War II.

His message on this subject of such vital concern to our Nation is enclosed. We trust it will be of interest to you, both now and for reference in the future.

Your comments and inquiries concerning the program are invited. They may be addressed to Andrew Gibson, Maritime Administrator, U. S. Department of Commerce, Washington, D. C.

Sincerely,

Maurice H. Stans

Maurice H. Stans

Enclosure

October 23, 1969

Office of the White House Press Secretary

THE WHITE HOUSE

TO THE CONGRESS OF THE UNITED STATES:

The United States Merchant Marine -- the fleet of commercial ships on which we rely for our economic strength in time of peace and our defense mobility in time of war -- is in trouble.

While only one-fourth of the world's merchant ships are more than twenty years old, approximately three-fourths of American trading vessels are at least that antiquated. In the next four years, much of our merchant fleet will be scrapped. Yet we are now producing only a few new ships a year for use in our foreign trade. Building costs for American vessels are about twice those in foreign shipyards and production delays are excessive. Operating expenses also are high by world standards, and labor-management conflicts have been costly and disruptive.

Both government and industry share responsibility for the recent decline in American shipping and shipbuilding. Both government and industry must now make a substantial effort to reverse that record. We must begin immediately to rebuild our merchant fleet and make it more competitive. Accordingly, I am announcing today a new maritime program for this nation, one which will replace the drift and neglect of recent years and restore this country to a proud position in the shipping lanes of the world.

Our program is one of challenge and opportunity. We will challenge the American shipbuilding industry to show that it can rebuild our Merchant Marine at reasonable expense. We will challenge American ship operators and seamen to move toward less dependence on government subsidy. And, through a substantially revised and better administered government program, we will create the opportunity to meet that challenge.

more

The need for this new program is great since the old ways have not worked. However, as I have frequently pointed out, our budget constraints at this time are also significant. Our program, therefore, will be phased in such a way that it will not increase subsidy expenditures during the rest of fiscal year 1970 and will require only a modest increase for fiscal year 1971. We can thus begin to rebuild our fleet and at the same time meet our fiscal responsibilities.

The Shipbuilding Industry

Our shipbuilding program is designed to meet both of the problems which lie behind the recent decline in this field: low production rates and high production costs. Our proposals would make it possible for shipbuilders to build more ships and would encourage them to hold down the cost of each vessel. We believe that these two aspirations are closely related. For only as we plan a major long-range building program can we encourage builders to standardize ship design and introduce mass production techniques which have kept other American products competitive in world markets. On the other hand, only if our builders are able to improve their efficiency and cut their costs can we afford to replace our obsolescent merchant fleet with American-built vessels. These cost reductions are essential if our ship operators are to make capital investments of several billion dollars over the next ten years to build new, high-technology ships.

Our new program will provide a substantially improved system of construction differential subsidies, payments which reimburse American shipbuilders for that part of their total cost which exceeds the cost of building in foreign shipyards. Such subsidies allow our shipbuilders -- despite their higher costs -- to sell their ships at world market prices for use in our foreign trade. The important features of our new subsidy system are as follows:

1. We should make it possible for industry to build more ships over the next ten years, moving from the present subsidy level of about ten ships a year to a new level of thirty ships a year.

2. We should reduce the percentage of total costs which are subsidized. The government presently subsidizes up to 55 percent of a builder's total expenses for a given vessel. Leaders of the shipbuilding industry have frequently said that subsidy requirements

more

can be reduced considerably if they are assured a long-term market. I am therefore asking that construction differential subsidies be limited to 45 percent of total costs in fiscal year 1971. That percentage should be reduced by 2 percent in each subsequent year until the maximum subsidy payment is down to 35 percent of total building expenses.

We are confident that the shipbuilding industry can meet this challenge. If the challenge is not met, however, then the Administration's commitment to this part of our program will not be continued.

3. Construction differential subsidies should be paid directly to shipbuilders rather than being channeled through shipowners as is the case under the present system. A direct payment system is necessary if our program is to encourage builders to improve designs, reduce delays, and minimize costs. It will also help us to streamline subsidy administration.

4. The multi-year procurement system which is now used for other government programs should be extended to shipbuilding. Under this system, the government makes a firm commitment to build a given number of ships over a specified and longer period of time, a practice which allows the industry to realize important economies of scale and to receive lower subsidies.

5. The increased level of ship construction will require a corresponding increase in the level of federally insured mortgages. Accordingly, we should increase the ceiling on our present mortgage insurance programs from \$1 billion to \$3 billion.

6. We should extend construction differential subsidies to bulk carriers, ships which usually carry ore, grain, or oil and which are not covered by our present subsidy program.

7. A Commission should be established to review the status of the American shipbuilding industry, its problems, and its progress toward meeting the challenge we have set forth. The Commission should report on its findings within three years and recommend any changes in government policy which it believes are desirable.

more

The Ship Operating Industry

My comments to this point have related to the building of merchant vessels. The other arm of our maritime policy is that which deals with the operation of these ships. Here, too, our new program offers several substantial improvements over the present system.

1. Operating differential subsidies should be continued only for the higher wage and insurance costs which American shipping lines experience. Subsidies for maintenance and repair and for subsistence should be eliminated. Instead of paying the difference between the wages of foreign seamen and actual wages on American ships, however, the government should compare foreign wages with prevailing wage levels in several comparable sectors of the American economy. A policy which ties subsidies to this wage index will reduce subsidy costs and provide an incentive for further efficiencies. Under this system, the operator would no longer lose in subsidies what he saves in costs. Nor would he continue to be reimbursed through subsidies when his wage costs rise to higher levels.

2. At the same time that we are reducing operating subsidies, it is appropriate that we eliminate the "recapture" provisions of the Merchant Marine Act of 1936. These provisions require subsidized lines to pay back to the government a portion of profits. If the recapture provisions are removed, the purpose for which they were designed will be largely accomplished by corporate taxes, which were at much lower rates when these provisions were instituted. We will also save the cost of administering recapture provisions.

3. Many bulk carriers presently receive indirect operating subsidies from the government because of the statutory requirement that certain government cargos must be shipped in United States vessels at premium rates. When the Department of Agriculture ships grain abroad, for example, it pays higher rates out of its budget than if it were allowed to ship at world market rates. We will propose a new, direct subsidy system for such carriers, thus allowing us to phase out these premium freight rates and reduce the costs of several nonmaritime government programs.

4. Ship operators now receiving operating differential subsidies are permitted to defer Federal tax payments on reserve funds set aside for construction purposes. This provision should be extended to include all qualified ship operators in the foreign trade, but only for well-defined ship replacement programs.

more

5. Past government policies and industry attitudes have not been conducive to cooperation between labor and management. Our program will help to improve this situation by ending the uncertainty that has characterized our past maritime policy. Labor and management must now use this opportunity to find ways of resolving their differences without halting operations. If the desired expansion of merchant shipping is to be achieved, the disruptive work stoppages of the past must not be repeated.

6. The larger capital investment necessary to construct a modern and efficient merchant fleet requires corresponding port development. I am therefore directing the Secretary of Commerce and the Secretary of Transportation to work with related industries and local governments in improving our port operations. We must take full advantage of technological advances in this area and we should do all we can to encourage greater use of intermodal transportation systems, of which these high-technology ships are only a part.

Equal Employment Opportunities

The expansion of American merchant shipbuilding which this program makes possible will provide many new employment opportunities. All of our citizens must have equal access to these new jobs. I am therefore directing the Secretary of Commerce and the Secretary of Labor to work with industry and labor organizations to develop programs that will insure all minority groups their rightful place in this expansion.

Research and Development

We will also enlarge and redirect the maritime research and development activities of the Federal government. Greater emphasis will be placed on practical applications of technological advances and on the coordination of Federal programs with those of industry.

* * * * *

The history of American commercial shipping is closely intertwined
more

with the history of our country. From the time of the Colonial fishing sloops, down through the great days of the majestic clipper ships, and into the new era when steam replaced the sail, the venturesome spirit of maritime enterprise has contributed significantly to the strength of the nation.

Our shipping industry has come a long way over the last three centuries. Yet, as one of the great historians of American seafaring, Samuel Eliot Morrison, has written: "all her modern docks and terminals and dredged channels will avail nothing, if the spirit perish that led her founders to 'trye all ports.'" It is that spirit to which our program of challenge and opportunity appeals.

It is my hope and expectation that this program will introduce a new era in the maritime history of America, an era in which our ship-building and ship operating industries take their place once again among the vigorous, competitive industries of this nation.

RICHARD NIXON

THE WHITE HOUSE,

October 23, 1969.

#



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

file DD #1
630-4.1

IN REPLY REFER TO

0704L/HJ
Ser 153

14 JUN 1979

REGISTERED MAIL 3069303
RETURN RECEIPT REQUESTED

Port of Portland
P. O. Box 3529
Portland, Oregon 97208

Gentlemen:

	Actg	Info
Commission		
Executive Director		
Deputy Exec. Director		
Asst. Exec. Director		
Attorney		
Aviation		
Community Development		
Engineering Services		
Finance/Administration		
Marine Development		
D. Regier	X	
A. C. Carter		X
S. Jones		X

The Government hereby accepts your offer of 1 June 1979, in the sum of One Hundred and Two Thousand Dollars (\$102,000) guaranteed minimum annual rental for lease of the Navy-owned Floating Dry Dock YFD-69.

By this letter you are hereby awarded Contract N00024-79-L-0003 for lease of the YFD-69, subject to the terms and conditions set forth in the Invitation for Bids (IFB) for the YFD-69 dated 25 April 1979.

The formal lease document designated N00024-79-L-0003 will be a current Naval Sea Systems Command lease for Floating Dry Docks, pursuant to Title 10 U. S. Code 2667, and will be effective as of 1 February 1980.

The Supervisor of Shipbuilding, Conversion and Repair, USN, Seattle, Washington, will be the Naval Sea Systems Command's representative for this lease.

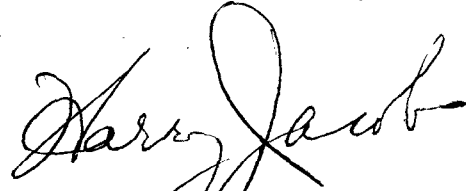
Arrangements should be made between you and the Supervisor prior to the effective date of the new contract for (i) the taking of a joint inventory of YFD-69 (ii) a joint physical condition survey and (iii) delivery by you of the performance bond and certificate of insurance coverage as specified in the IFB.

Use of YFD-69 is conditioned upon receipt and approval of the (i) performance bond and (ii) insurance coverage. These items should be forwarded to this Command via the Supervisor of Shipbuilding, Conversion and Repair, USN, Seattle, Washington 98115.

PSY500006193

0704L/HJ
Ser 153

Please acknowledge receipt on the original and two (2) copies of this letter, and return such original and two (2) copies to the Commander, Naval Sea Systems Command, Department of the Navy, Washington, D. C. 20362, Attention: SEA-0704. The fourth copy is for your retention.


HARRY JACOBS
Contracting Officer
Naval Sea Systems Command

This above award received this

_____ day of _____ 1979.

PORT OF PORTLAND

By: _____

Copy to:
SUPSHIP, Seattle, WA
CNO (NOP-43N)
CNM (MAT-044)

PSY500006194

DRAFT
EWB:st
9/25/69

Commander, Naval Ships Systems Command
Code 07511
Washington, D. C.
Via: Industrial Manager
Supervisor of Shipbuilding, Conversion and Repair
13th Naval District
2400 - 11th Avenue, Southwest
Seattle, Washington 98134

Gentlemen:

Subject: Contract NObs - 4315
Floating Dry Dock YFD-69
Extension of Lease Term

Reference is made to Contract NObs-4315 and supplemented by Nos. 1, 2 and 3 relating to the Floating Dry Dock YFD-69 berthed at Swan Island, Portland, Oregon.

The lease extension now in effect expires on January 31, 1970. In accordance with the terms of Supplement No. 2 to the basic lease, the Port hereby requests the extension of the term of the agreement for an additional increment of five (5) years beginning on February 1, 1970, and ending on January 31, 1975, under the present rental rate as set forth in said Supplement No. 2 under "Article 5 Rent."

Article 6, Maintenance, (i) of Supplement No. 2 provides in part as follows;

The Lessee shall, in addition to the foregoing drydocking requirement, drydock the Dry Dock once more during the term of this lease when directed by the Department, as a requirement of normal maintenance under this Article and make necessary repairs to the underwater hull and the paint coatings thereon. In the event the Department shall not direct the Lessee to so drydock the Dry Dock or any section thereof prior to the expiration of the term of this lease, then the Lessee shall pay to the Government on

or before 31 January 1970 a sum equal to the estimated cost of drydocking the Dry Dock or any section thereof not so drydocked. Such estimated cost shall be determined by agreement between the Contracting Officer and the Lessee.

It is the opinion of our technical staff and substantiated by the Annual Inspection Summary as recent as the latter part of January, 1969, that the underwater hull of the drydock is in good condition.

The drydock was drydocked in mid-1965 at which time the underwater hull was completely sandblasted and painted with Navy vinyl system. The drydock is maintained in fresh water and is not exposed to deterioration as if it were in salt water.

We, therefore, request that the Port be relieved of self docking YFD-69 at this time as provided in the above quoted Article 6 (i) and the Port hereby agrees to selfdock and paint and make necessary repairs to it not later than the end of the fourth year of the second renewal period if the present condition remains the same. We further agree to reimburse the Government for the estimated expense which would be incurred by the Port if the drydock were drydocked in accordance with Article 6 (i).

Since the Port is a public body, it is in the best interest of the taxpayers that no unnecessary expenditure be made. From news media, it is indicated the Federal Government desires to curtail construction expenditures.

We ask that you give due consideration to our request and if you need additional information, please let us know.

Very truly yours,

THE PORT OF PORTLAND

GEORGE M. BALDWIN
General Manager

GENERAL PROVISIONS

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ARTICLE 1. PURPOSE -- These General Provisions form a part of the lease bearing the number designated above.

ARTICLE 2. LEASED PROPERTY -- The Government does hereby lease and rent the Dry Dock to the Lessee and the Lessee does hereby hire and rent the same from the Government.

ARTICLE 3. OPERATION AND USE -- The Lessee shall have the right to use the Dry Dock at the Shipyard, unless otherwise authorized by the Contracting Officer, in the performance of shipbuilding, ship repair and ship conversion work and shall at all times give such priority to work for the Government as the Department may from time to time require. The Lessee shall operate the Dry Dock in a manner following the practices and standards of care normally employed in the operation of similar dry docks and in accordance with the operating manual for said Dry Dock issued by the Department of the Navy, and as directed by the Department. The Lessee's plans for the operating basin and the mooring of the Dry Dock shall be subject to the approval of the Department, and the Dry Dock shall be moored at the Shipyard in accordance with said plans as approved. ✓

ARTICLE 4. DELIVERY -- The Lessee shall accept delivery and take custody of the Dry Dock at its present site on or before the date specified in the Special Provisions for the commencement of the term and, at its own expense, shall promptly remove the Dry Dock to the operating basin provided therefor, moor it therein, and furnish all facilities and accomplish all work required to place the Dry Dock in operation. Prior to such delivery the Lessee shall (i) participate in the joint inventory and inspection and preparation of the report thereof as required by Articles 9(b) and 15 hereof, and (ii) furnish the Department the plans for the operating basin and the mooring of the Dry Dock specified in Article 3 hereof (which plans shall be approved by the Department before the Dry Dock is permanently moored), the insurance policies or other evidence of the insurance required by Article 7 hereof, and the performance bond required by Article 12 hereof.

In the event the Dry Dock is not delivered to the Lessee by reason of the Lessee's failure to perform any of the foregoing or other obligations under this lease, or by reason of any other act, fault or failure of the Lessee, the Lessee shall remain liable for the full performance of all the obligations of this lease including the payment of rent effective as of the date specified in the Special Provisions for the commencement of the term. The Government shall not be liable to the Lessee for damages or loss of profit by reason of any delay or failure to deliver the Dry Dock occasioned by an act or fault of the Government, provided, however, that in such event the date upon which the rental obligation shall commence shall be adjusted to reflect such period of delay or failure to deliver the Dry Dock. ✓

ARTICLE 5. RENT --

(a) For the right to use the Dry Dock, the Lessee shall pay to the Government, on or before the fifteenth (15th) day of each annual period in respect of the preceding annual period of the term of this lease, an amount equal to the difference between:

- (i) The amount computed in accordance with paragraph (b) of this Article (such amount being hereinafter referred to as the "Amount To Be Paid") and
- (ii) The sum of all amounts allowed as credits against the Amount To Be Paid during said preceding annual period in accordance with the provisions of Article 6(c) and Article 7(f) of this lease.

(b) The Amount To Be Paid shall be the greater of (i) or (ii) below:

- (i) The lump sum specified in Clause 3(a). of the Special Provisions; or
- (ii) 40% of the minimum charges set forth in the Special Provisions for the actual number of days a vessel occupies the Dry Dock or 40% of the actual charges made by the Lessee for such period, whichever amount is greater.

For the purpose of computing rental due under this paragraph a Haul Day shall be deemed to be the first twenty-four continuous hours or less of a drydocking period. A Lay Day shall constitute each succeeding period of twenty-four continuous hours or less following a Haul Day whether or not work is performed for the Vessel. A Haul Day shall commence when the stem of the vessel enters the mouth of the Dry Dock. Any fractional part of a day shall, for the purpose of computations herein, be deemed to be a full day. A Saturday, Sunday or a Legal Holiday shall not be deemed a Haul Day or Lay Day unless work is performed in the Lessee's shipyard for the Vessel on such days.

In computing such rental the Lessee shall not be required to include any amount for the right to use the Dry Dock in the performance of (i) work ordered by the Government on a cost plus a fixed fee or a time and material basis, or (ii) any other work ordered by the Government if the compensation to be paid to the Lessee shall have been determined on the basis that no amount is to be paid for the use of the Dry Dock in the performance of such work.

For the purpose of this Article the phrase "work ordered by the Government" shall be deemed to include, without limiting the generality thereof, work ordered by any department, agency or instrumentality of the Government and work on foreign vessels in each case in which the entire cost of such work is to be borne by the Government.

(c) The payments made for any annual period, pursuant to paragraph (a) of this Article, shall be accompanied by such information, records and verifications as the Department may require in order to determine the correctness of each such payment.

ARTICLE 6. MAINTENANCE -- From the time of delivery until the return of the Dry Dock, the Lessee, at its own expense, shall:

(a) Keep the slip and drydock basin properly dredged and maintain the moorings in such manner as to permit the efficient operation of the Dry Dock.

(b) Perform normal maintenance in accordance with sound industrial practice including protection, preservation, maintenance and repair so as to assure the full availability and usefulness of the Dry Dock at all times and shall be obligated to expend annually the amount specified in the Special Provisions for such normal maintenance. [The performance of such maintenance shall be subject to the approval of or as may be directed by the Department.] If in any annual period the Lessee shall expend less than the specified amount for such maintenance of the Dry Dock, the unexpended balance shall be carried over for each succeeding year of the term or be paid in cash as additional rent, at the election of the Department. The foregoing obligation shall be in addition to the Lessee's obligation with respect to drydocking set forth hereinafter in subparagraph (i) through (v), provided, however, that notwithstanding the provisions of subparagraph (i), the drydocking shall be accomplished no later than the end of the fourth year of the term. The Lessee is hereby expressly made responsible for any loss or damage to the Dry Dock resulting from failure to comply with the provisions of this Article to the extent that such loss or damage is found by the Department to constitute a risk not of the type customarily covered by insurance. Joint annual inspections and such other inspections as may be determined necessary by the Department shall be made of the material condition of the Dry Dock, including the machinery and equipment thereof, by the Department and Lessee, after which the Department may issue instructions to the Lessee for the performance of such maintenance work as is considered necessary. Compliance with such instructions, however, shall not in itself be construed as a complete discharge of Lessee's obligations to protect, preserve, repair and maintain the Dry Dock. In

general, the type of maintenance work which will be required in connection with the Dry Dock includes, but is not limited to, the following:

- (i) At the time of each annual inspection the Dry Dock shall be careened sufficiently to expose as much as possible of the exterior underwater hull in order to determine its condition. When the inspection by careening discloses deterioration of the underwater hull, or the paint coatings thereon, the Dry Dock shall be drydocked and necessary repairs including painting of the underwater hull and other underwater parts shall be made as required. The Dry Dock shall be drydocked at least once during the term of this lease as a requirement of normal maintenance under this Article. The hull shall be repaired as may be necessary and completely painted or treated during that drydocking.
- (ii) Maintain all above water hull work and painting, exterior and interior, including ballast tanks, in good condition.
- (iii) Accomplish equipment repairs and replacements, except such replacements as are of a nature as defined in Article 6(c) of these General Provisions, to keep all equipment in good operating condition and maintain all inactive machinery and equipment in a good state of preservation.
- (iv) Replace deteriorated keel and bilge blocks.
- (v) Operate for approximately a thirty (30) minute period every thirty (30) days all equipment not in regular use; except that Lessee shall have the right to place any equipment not required for its operation of the Dry Dock in an approved state of partially or totally immobilized preservation or storage at locations not aboard the Dry Dock. It is understood that Lessee will, at its own expense, return and restore such preserved equipment to operating condition upon the termination or expiration of this lease.

(c) As soon as practicable after the commencement of the term of this lease, the Lessee shall submit to the representative of the Department in writing, a proposed normal maintenance program indicating the manner and time for the accomplishment of the normal maintenance work set forth in paragraph (b) of this Article, including an appropriate maintenance records system, in sufficient detail to show its adequacy as a normal maintenance program. The Lessee shall perform such maintenance work as may be directed by the Contracting Officer in writing in accordance with the provisions of the above paragraph (b). To the extent that any directed repair or restoration work is in excess of the Lessee's then current normal maintenance

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IMPORTANT

obligation, under paragraph (b) above, the allowable costs incurred in effecting such repair or restoration shall either (i) be credited against the Amount To Be Paid with respect to the annual period in which the Lessee shall have commenced such repair or restoration and any balance not so credited shall be credited against the Amount To Be Paid for the succeeding annual periods or (ii) be reimbursed by the Department to the Lessee as the Department shall specify by notice to the Lessee, provided, however, that the Government shall not be obligated to so credit Lessee for any repair or maintenance work performed by Lessee or otherwise reimburse Lessee unless the prior written approval of the Department shall have been obtained for such work. If it appears that the sum of the Amount To Be Paid with respect to the succeeding annual periods, will not be sufficient to permit the cost of repair or restoration to be credited in full against such sum, the Lessee shall not be required to effect such repair or restoration unless and until the Department shall have agreed that the cost thereof shall be reimbursed to the Lessee. For the purpose of determining the credit against the Amount To Be Paid, the amount to be allowed shall be the estimated cost of such repair or restoration as specified in the written authorization or direction of the Department to perform such work, provided, that upon completion of such repair or restoration such amount shall be adjusted on the basis of the allowable actual costs thereof as determined under the provisions of Article 19 of this lease. If the authorized or directed repair or restoration is not completed within one (1) year following the end of the period in which such work shall have commenced then the Lessee shall be entitled to such credit only to the extent of the allowable cost of the work actually performed by the end of such year; provided, that in such event the Lessee shall not be obligated to complete such repair or restoration unless the Department shall authorize or direct such completion and shall specify in writing that the cost of such completion shall be (i) credited against the Amount To Be Paid for the next succeeding annual period, or (ii) reimbursed to the Lessee. The Lessee shall not be required to give notice to the Department, if the Lessee shall estimate the cost of such repair or restoration at Five Hundred Dollars (\$500.00) or less and shall elect to perform such repair or restoration at its own expense. In the event the Lessee shall, at its own expense, replace any complete and readily severable item of the Dry Dock, such replaced item shall become the property of the Lessee.

ARTICLE 7. INSURANCE AND RISK OF LOSS

(a) From the date of delivery of the Dry Dock to Lessee until return of the Dry Dock to custody of the Government, the Lessee, at its own expense and without reimbursement under this lease, shall procure and maintain the following insurance:

- (i) Marine floating dry dock insurance in the amounts specified in the Special Provisions to cover the Dry Dock while

located at the Shipyard and during any tow, including tow required to redeliver the Dry Dock in accordance with Article 18 of this lease, and

- (ii) Workmen's compensation (including longshoremen and harbor workers coverage), employers' liability, bodily injury liability, and third party property damage insurance in such amounts as shall be sufficient to cover the risks arising out of Lessee's possession and use of the Dry Dock, or in such amounts as the Government shall specify pursuant to paragraph (c) hereof. Each such policy shall contain an indorsement reading substantially as follows:

"The insurer waives any right of subrogation against the United States of America which might arise by reason of any payment under this policy."

- (b) All insurance shall be for the protection of the Government and the Lessee against their respective risks and liabilities in connection with the Dry Dock, shall name the Lessee and the United States of America (Department of the Navy) as the insured, and shall contain a loss payable clause reading substantially as follows:

"Loss, if any, under this policy shall be adjusted with (Lessee) and the proceeds, at the direction of the Government, shall be payable to (Lessee). Proceeds not paid to (Lessee) shall be payable to the United States of America."

- (c) Except as otherwise specifically provided herein, all insurance required to be carried by the Lessee shall be in such form, for such amounts and for such periods of time as the Department may specify, and with such insurers as the Department, represented by the Insurance Branch, Naval Material Command Washington, D.C., may approve. Each policy of insurance shall provide for thirty (30) days prior notice to such Insurance Branch in the event of cancellation of the policy by the insurer. A certificate or certified copy of each policy of insurance procured hereunder shall be deposited with the said Insurance Branch promptly following the date of delivery of the Dry Dock, and similar evidence of renewal of such insurance shall be deposited with said Insurance Branch not less than thirty (30) days prior to the expiration of the term of any such insurance.

- (d) Nothing in this Article shall be construed as a waiver of Lessee's obligations under Article 8 of this lease.

- (e) All risk of loss of or damage to the Dry Dock during the term of this lease, whether or not caused by the failure of

the Lessee to exercise due diligence in complying with the provisions hereof, shall be borne by the Lessee, and the Lessee shall, upon demand and at the election of the Department, either compensate the Government in full for any loss or damage, or rebuild, replace or repair any part of the Dry Dock so lost or damaged; provided, however, that the Lessee shall be liable for loss of or damage to the Dry Dock resulting (i) from risks expressly required to be insured hereunder only to the extent of insurance so required to be procured and maintained, whichever shall be greater, (ii) from risks which are in fact covered by insurance or for which the Lessee is otherwise reimbursed, but only to the extent of such insurance or reimbursement; and provided, further, that the Lessee shall not be liable for loss of or damage to the Dry Dock arising from causes beyond the control of the Lessee occasioned by a risk not in fact covered and not customarily covered by insurance in the locality in which the Dry Dock is situated. Nothing contained herein, however, shall relieve the Lessee of liability with respect to any loss of or damage to the Dry Dock, not fully compensated for by insurance, which results from willful misconduct, lack of good faith or failure to exercise due diligence on the part of any of the Lessee's officers, directors or representatives having supervision or direction of the Dry Dock.

(f) In the event the Dry Dock or part thereof shall require repair or restoration resulting from loss or damage the risk of which is required to be covered by insurance hereunder, the Lessee shall promptly give notice thereof to the Department and submit a report on the extent of damage together with an estimate of the cost to repair such damage and the time needed to complete such repairs. The Lessee shall effect such repair or restoration as the Department may direct or approve. The Department shall direct the payment to the Lessee of so much of the proceeds of the available insurance covering such loss or damage as may be necessary to reimburse the Lessee for the allowable costs of effecting such authorized repair or restoration. If the proceeds of such insurance are not sufficient to cover the allowable costs of such repair or restoration, and if the loss or damage has resulted from any cause the risk of which is not required by this lease to be borne by the Lessee without regard to the sufficiency of insurance proceeds, the excess of such allowable costs over such insurance proceeds shall be allowed as a credit against the Amount To Be Paid for the annual period in which the Lessee shall have commenced such repair or restoration and any balance not so credited shall be credited against the Amount To Be Paid for the succeeding annual periods of the then current term of the lease. If the Lessee shall not have been required or authorized to effect such repair or restoration, the Lessee shall promptly refund to the Government the amount of any insurance proceeds heretofore paid the Lessee on account of such loss or damage.

(g) (i) The Lessee shall provide, maintain, change or discontinue such insurance as the Government may from time to time require; provided, that the Lessee's liability for loss or damage to the Dry Dock is modified accordingly;

- (ii) If any insurance requirement is changed pursuant to (i) above, an equitable adjustment in rent shall be made so as to reflect any resulting saving or increased costs to the Lessee; and
- (iii) The Lessee shall notify the Department whenever the use of the Dry Dock in the performance of Government contracts changes so as to become seventy-five percent (75%) or more of the total productive capacity thereof, and conversely whenever such use changes so as to become less than seventy-five percent (75%) of such capacity.

ARTICLE 8. INDEMNIFICATION -- The Lessee shall indemnify and hold harmless the Government, its officers, agents and employees for any and all claims for loss or damage to property, of bodily injury to, or death of, persons arising out of or in connection with the Lessee's use or possession of the Dry Dock.

ARTICLE 9. DISCLAIMER OF WARRANTY AND CONDITION OF DRY DOCK --

(a) The Dry Dock is leased to the Lessee on an "as is, where is" basis without warranty of any kind, express or implied, on the part of the Government. The Lessee acknowledges that no representations concerning the condition or state of repair of the Dry Dock or any part thereof have been made by the Government prior to, or at the time of, the execution of this lease which are not set forth herein and that this lease contains all the agreements of the parties. The Lessee further acknowledges that the Government has made no agreement or promise to alter, improve, adapt, or repair the Dry Dock, any part thereof, or any equipment relating thereto, prior to, or at the time of the execution of this lease.

(b) Immediately prior to the delivery of the Dry Dock to the Lessee an inspection of the physical condition of the Dry Dock shall be made by representatives of the Department and the Lessee. A joint report of their findings shall be made which shall be conclusive evidence as to the physical condition of said Dry Dock as of the time of delivery. A similar survey and joint report shall be made by the parties upon the termination or expiration of this lease. The findings of that report shall be conclusive evidence as to the physical condition of the Dry Dock as of the date of termination or expiration of this lease.

ARTICLE 10. TERMINATION BY THE GOVERNMENT -- This lease may be terminated by the Department at any time prior to the expiration of the term hereof:

(a) During any national emergency declared by the President or Congress;

(b) Upon thirty (30) days' written notice to the Lessee whenever the Secretary shall determine that the interests of national defense so require;

(c) Upon ten (10) days written notice to the Lessee if the Lessee shall have defaulted in the performance of any of its obligations hereunder and shall have failed to cure or initiate action to cure such default within thirty (30) days after receipt of notice from the Department specifying such default or within such longer time as may have been specified in said notice; provided, however, that in lieu of terminating this lease, the Government may elect to perform, or cause to be performed, said defaulted obligations for the account of and at the expense of the Lessee;

(d) Upon thirty (30) days' written notice to the Lessee after determination by the Contracting Officer that the Dry Dock is not being used to an extent commensurate with ship repair work available in the area;

(e) In the event of institution by Lessee or others of proceedings in any Federal or State court for adjudication of the Lessee as a bankrupt, for corporate reorganization of the Lessee, for an arrangement within the meaning of Bankruptcy Act and any amendments thereto, for other similar debtor or creditor relief available under State or local law, or upon the appointment of a Receiver or Trustee for the property of the Lessee;

(f) Upon ninety (90) days written notice to the Lessee following a determination by the Secretary that the Dry Dock is surplus to the further needs and responsibilities of the Department.

If the Department shall terminate this lease under paragraph (c), (d) or (e) of this Article, it shall have the immediate right to reenter and resume possession of the Dry Dock and remove all persons and property therefrom and such reentry shall not be deemed an acceptance of surrender of this lease. In such event the Department may, at its election, relet the Dry Dock for any period, less than, equal to, or greater than the remainder of the term of this lease or any extension thereof, for any rental and upon any terms and conditions deemed by the Government to be reasonable and satisfactory, and the Lessee shall be liable to and shall pay to the Government the amount of the difference between the rental and charges provided for under this lease and not paid by the Lessee and the net rental and charges received by the Government from such reletting of the Dry Dock, which amount shall be due and payable at the time specified for the payment of rent in Article 5(a) hereof. It is expressly agreed and understood that, whether or not the Government shall have relet the Dry Dock as aforesaid, the Lessee shall be obligated to and shall reimburse the Government for any costs incurred by the Government in (i) resuming possession of the Dry Dock, and (ii) performing or having performed the maintenance and any other obligation for which the Lessee is responsible under this lease but has failed to perform.

ARTICLE 11. TERMINATION BY THE LESSEE -- This lease may be terminated by the Lessee at any time prior to the expiration of the term hereof upon thirty (30) days' written notice to the Department in the event of damage to or destruction of all or a substantial part of the Dry Dock so as to render the Dry Dock incapable of use for the purposes for which it is leased hereunder; provided, that (i) such damage or destruction is occasioned by a risk not in fact covered and not customarily covered by insurance in the locality in which the Dry Dock is located or by a risk which is covered by insurance and the Department either has not authorized or directed the repair, rebuilding or replacement of the Dry Dock or does not make provision for payment for such repair, rebuilding or replacement by the application of insurance proceeds or otherwise, and (ii) such damage or destruction is not occasioned by the fault or negligence of the Lessee or by any failure or refusal on its part fully to comply with its obligations hereunder.

ARTICLE 12. PERFORMANCE BOND -- Prior to the delivery of the Dry Dock to the Lessee, the Lessee shall furnish a performance bond hereunder in a penal sum specified in the Special Provisions. Said bond shall be satisfactory in all respects to the Department.

ARTICLE 13. MOVEMENT OF DOCK -- Any movement of the Dry Dock shall be at the sole expense of the Lessee and shall be conducted in accordance with rules and regulations prescribed in advance of the movement by the Department; provided, however, that prior to any movement of the Dry Dock approval of the Department shall be obtained as to the preparation for towing the Dry Dock and preparation of the operating berth of said Dock.

ARTICLE 14. ALTERATIONS -- The Lessee shall not, so long as this lease shall be in effect, make any substantial alterations, additions or betterments to the Dry Dock without the prior approval, or consent of the Department. All such approved alterations, additions or betterments shall become the property of the Government when annexed to any property included in the Dry Dock, except those items of personal property belonging to the Lessee which can be removed readily without injury to the Dry Dock. Such items shall be removed by the Lessee any time prior to the expiration of the lease or such additional periods as the Department shall authorize. All property not so removed shall be deemed abandoned by the Lessee and may be used or disposed of by the Government without liability or any obligation to account to the Lessee therefor. Nothing contained herein shall be construed to authorize any alterations, additions, or betterments to the Dry Dock which will render the Dry Dock unsuitable for the purpose for which the Dry Dock was designed or is being retained by the Government unless, in addition to securing the prior approval or consent of the Department thereto, the Lessee shall agree to restore the Dry Dock to the condition thereof as of the time of delivery, at its own expense, within ninety (90) days after being required so to do by the Department (i) during any period of national emergency, or (ii) after determination by the Secretary that such restoration is in the interest of national defense. The

Lessee shall not do or suffer anything to be done upon or in connection with the Dry Dock which may subject it or any part of it to any liens or rights in rem and shall promptly discharge or cause to be discharged any lien or right in rem of any kind other than one in favor of the Government which at any time shall arise or exist with respect to the Dry Dock or to any alterations, additions or betterments thereto.

ARTICLE 15. INVENTORY -- Immediately prior to the delivery of the Dry Dock to the Lessee, in addition to the joint inspection of physical condition required by Article 9(b) of this lease, the parties hereto shall take a full and complete inventory including current condition of all portable tools, shop machinery, spare parts and instruments and all consumable supplies and materials of the Government then on board the Dry Dock. Upon the expiration or termination of this lease, the parties shall take a similar inventory. The Lessee, at its expense, as directed by the Department, shall promptly deliver on board the Dry Dock such portable tools or instruments or such consumable supplies or materials as shall be required to meet any deficiency either as to quantity or quality disclosed by the latter inventory. In the event the latter inventory discloses an excess quantity of portable tools or instruments or consumable materials or supplies, the Lessee may remove such excess quantity; in the absence of prompt removal thereof, title to such excess quantity shall thereupon vest in the Government.

ARTICLE 16. GOVERNMENT ACCESS -- The Government shall have access at all reasonable times to the Dry Dock for the purpose of inspecting or inventorying the same and for other purposes under this lease.

ARTICLE 17. NON-REHABILITATION -- The Government shall not, as between the parties hereto, be under any duty or obligation to restore or rehabilitate, or to pay the costs of the restoration or rehabilitation of, any part of the land or any other property of the Lessee affected by the installation, possession, operation, or removal of the Dry Dock under this lease or otherwise.

ARTICLE 18. RETURN OF DRY DOCK -- Upon the expiration or termination of this lease, the Lessee at its own expense shall prepare the Dry Dock for tow and return it to the Government at such place as shall be specified in the Special Provisions, in as good condition as when delivered to the Lessee under Article 4 of this lease or as improved thereafter, ordinary wear and tear excepted; provided, however, that the Department may direct the Lessee to return the Dry Dock to a place other than so specified, in which event (i) the Department shall reimburse the Lessee for that part of the allowable costs incurred in effecting such return which is in excess of the cost that would have been incurred in returning the Dry Dock to the place specified in the Special Provisions, and (ii) conversely, the Lessee shall pay to the Government in cash the amount by which the cost of such return is less than the cost that would have been incurred in returning the Dry Dock to the place specified in the Special Provisions. The Lessee, at its

own expense, shall also place the Dry Dock in inactive status in accordance with the provisions of the United States Navy Design Manual 29. The Department reserves the right to elect whether (i) to accept performance by the Lessee of all or any part of the work specified in this Article, or (ii) in lieu thereof, to require the Lessee to pay the Government in cash an amount equivalent to the cost of performing any such work; provided, that the Lessee shall not be obligated to perform such work or to pay such cash amount at the expiration of the then current term if such term of the lease shall be renewed or extended under the provisions of this lease. In the event the parties are unable to agree as to the amount representing the cost of performing any such work, the Lessee shall pay to the Government in cash such amount as the Contracting Officer shall determine; provided, that if the Lessee shall dispute the reasonableness of such amount, the said determination of the Contracting Officer shall be deemed to be a question of fact within the meaning of Article 27, entitled "Disputes".

ARTICLE 19. PAYMENTS AND DISBURSEMENTS --

(a) Payments required to be made by the Lessee pursuant to Article 5 of this lease shall be made to the Commanding Officer, U.S. Navy Finance Center, Washington, D.C. 20360.

(b) At the end of each annual period, the Lessee may submit to the Contracting Officer certified bills in respect of all items for which the Lessee shall be entitled to reimbursement under this lease. Promptly after receipt of each such submission of bills, the Government shall, within the limits of the appropriations available therefor, pay to the Lessee such amount as said office shall have determined to be allowable costs reimbursable to the Lessee under this lease on account of such items and not previously paid or credited. Such allowable costs shall be determined in accordance with Part 5 of Section XV of the Armed Services Procurement Regulations in effect on the date of this lease, and shall exclude any profit to the Lessee therefor. The decisions of said Contracting Officer when reduced to writing and received by the Lessee, shall be binding on the parties hereto, subject to written appeal by the Lessee in accordance with Article 27, "Disputes".

(c) When any payment is to be made hereunder, the Contracting Officer, as a condition precedent to approving such payment, may, in his discretion, require that affidavits satisfactory to him be furnished by the Lessee that no liens or rights in rem of any kind lie upon or have attached against the Dry Dock, or any material or equipment furnished therefor, or any part thereof, either for or on account of any work done upon or about the Dry Dock, or any material or equipment furnished therefor, or in connection therewith, or any other cause or thing, or any claims or demands of any kind except the claims of the Department. The Lessee shall promptly discharge or cause to be discharged any valid lien or right in rem of any kind other than one in favor of the Government which at any time shall arise or exist with respect to the Dry Dock or material or equipment furnished therefor, or any part

thereof. If any such lien or right in rem shall not promptly be discharged, the Government may discharge or cause to be discharged said lien or right in rem at the expense of the Lessee.

ARTICLE 20. -- STATE AND LOCAL TAXES -- In the event that, as a result of any future Act of Congress subjecting Government-owned property to ad valorem taxation, taxes, assessments, or similar charges are thereupon imposed by State or local authorities upon the property leased hereunder (other than upon the Lessee's possessory or use interest therein), the Lessee shall pay the same when due and payable and this lease shall be renegotiated so as to accomplish an equitable reduction in the rent provided for therein, which reduction shall not be greater than the amount of such taxes, assessments, or similar charges; provided, that, in the event that the parties hereto are unable to agree, within ninety (90) days from the date of the imposition of such taxes, assessments, or similar charges, on a rental which, in the opinion of the Department, constitutes a reasonable return to the Government on the leased property, then, in such event, the Department shall have the right to determine the amount of the rental, which determination shall be binding on the Lessee, subject to appeal in accordance with the Article of this lease entitled "Disputes".

ARTICLE 21. -- PRORATION IN EVENT OF TERMINATION -- In the event of termination of this lease, other than for default, effective at any time other than at the end of any annual period of the term, the Amount To Be Paid shall be pro-rated to such date of termination.

ARTICLE 22. -- FAILURE TO INSIST ON COMPLIANCE -- The failure of the Government to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this lease shall not be construed as a waiver or relinquishment of the Government's right to the future performance of any such terms, covenants or conditions; and the Lessee's obligations in respect of such future performance shall continue in full force and effect.

ARTICLE 23. RIGHT TO SUBLEASE OR ASSIGN -- Neither this lease nor any interest herein shall be transferred, assigned or subleased by the Lessee except with the written consent of the Department nor shall the Dry Dock be sublet or otherwise made available by the Lessee to any third party or parties, including any other Federal Government agency, without such written consent.

ARTICLE 24. COVENANT AGAINST CONTINGENT FEES -- The Lessee warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessee for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE 25. OFFICIALS NOT TO BENEFIT -- No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this lease or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this lease if made with a corporation for its general benefit.

ARTICLE 26. GRATUITIES --

(a) The Government may, by written notice to the Lessee, terminate the rights of the Lessee under this lease if it is found after notice and hearing, by the Secretary or his duly authorized representative, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Lessee, or any agent or representative of the Lessee, to any officer or employee of the Government with a view toward securing this lease or securing favorable treatment with respect to the awarding or amending of the same, or the making of any determinations with respect thereto; provided, that the existence of the facts upon which the Secretary or his duly authorized representative makes such findings shall be in issue and may be reviewed in any competent court.

(b) In the event this lease is terminated as provided in paragraph (a) hereof, the Government shall be entitled (i) to pursue the same remedies against the Lessee as it could pursue in the event of a breach of the lease by the Lessee, and (ii) as a penalty, in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Secretary or his duly authorized representative) which shall be not less than three or more than ten times the costs incurred by the Lessee in providing any such gratuities to any such officer or employee.

(c) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this lease.

ARTICLE 27. DISPUTES --

(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Lessee. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from date of receipt of such copy, the Lessee mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Secretary. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Lessee shall be afforded an opportunity to be heard and to offer evidence in support of his appeal.

Pending final decision of a dispute hereunder, the Lessee shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

(b) This "Disputes" clause does not preclude consideration of law questions in connection with decisions provided for in paragraph (a) above; provided, that nothing in this contract shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

ARTICLE 28. EQUAL OPPORTUNITY

During the performance of this contract, the Lessee agrees as follows:

(a) The Lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Lessee agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this equal opportunity clause.

(b) The Lessee will, in all solicitations or advertisements for employees placed by or on behalf of the Lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(c) The Lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the said labor union or workers' representative of the Lessee's commitments under this equal opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965 and of the rules, regulations, orders, instructions, designations and other directives (hereinafter called "Orders") of the Secretary of Labor.

(e) The Lessee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965 and by the Orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such Orders.

(f) In the event of the Lessee's noncompliance with the equal opportunity clause of this contract or with any of said Orders, this contract may be canceled, or terminated or suspended in whole or in part and the Lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965 and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by Orders of the Secretary of Labor or as otherwise provided by law.

(g) The Lessee will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by the Orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.* The Lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Lessee may request the United States to enter into such litigation to protect the interest of the United States.

ARTICLE 29. EXAMINATION OF RECORDS

(a) (1) The Lessee agrees to maintain books, records, documents, and other evidence pertaining to the costs and expenses of this contract (hereinafter collectively called the "records") to the extent and in such detail as will properly reflect all net costs, direct and indirect, of labor, material, equipment, supplies, services, and other costs and expenses of whatever nature for which reimbursement is claimed under the provisions of this contract. The Lessee's accounting procedures and practices shall be subject to the approval of the Contracting Officer; provided, however, that no material change will be required to be made in the Lessee's accounting procedures and practices if they conform to generally accepted accounting practices and if the costs properly applicable to this contract are readily ascertainable therefrom.

* Unless otherwise provided, the "Equal Opportunity" clause is not required to be inserted in subcontracts below the second tier, except for subcontracts involving the performance of "construction work" at the "site of construction" (as those terms are defined in the Committee's rules and regulations) in which case the clause must be inserted in all such subcontracts. Subcontracts may incorporate by reference the "Equal Opportunity" clause.

(a) The Lessee agrees to make available at the office of the Lessee at all reasonable times during the period set forth in subparagraph (4) below any of the records for inspection, audit or reproduction by any authorized representative of the Department or of the Comptroller General.

(3) In the event the Comptroller General or any of his duly authorized representatives determines that his audit of the amounts reimbursed under this contract as transportation charges will be made at a place other than the office of the Lessee the Lessee agrees to deliver, with the reimbursement voucher covering such charges or as may be otherwise specified within two years after reimbursement of charges covered by any such voucher, to such representative as may be designated for that purpose through the Contracting Officer, such documentary evidence in support of transportation costs as may be required by the Comptroller General or any of his duly authorized representatives.

(4) Except for documentary evidence delivered to the Government pursuant to subparagraph (3) above, the Lessee shall preserve and make available his records (i) for a period of three years from date of final payment under this contract, and (ii) for such longer period, if any, as is required by applicable statute, by any other clause of this contract, or by (A) or (B) below.

(A) If this contract is completely or partially terminated, the records relating to the work terminated shall be preserved and made available for a period of three years from the date of any resulting final settlement.

(B) Records which relate to (i) appeals under the Disputes clause of this contract, (ii) litigation or the settlement of claims arising out of the performance of this contract, or (iii) cost and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall be retained by the Lessee until such appeals, litigation, claims or exceptions have been disposed of.

(5) Except for documentary evidence delivered pursuant to subparagraph (3) above, and the records described in subparagraph (4) (B) above, the Lessee may in fulfillment of his obligation to retain his records as required by this clause substitute photographs, microphotographs, or other authentic reproductions of such records, after the expiration of two years following the last day of the month of reimbursement to the Contractor of the invoice or voucher to which such records relate, unless a shorter period is authorized by the Contracting Officer with the concurrence of the Comptroller General or his duly authorized representative.

(6) The provisions of this paragraph (a), including this subparagraph (6), shall be applicable to and included in each subcontract hereunder which is on a cost, cost-plus-a-fixed-fee, time-and-material or labor-hour basis.

(b) The Lessee further agrees to include in each of his subcontracts hereunder, other than those set forth in subparagraph (a) (6) above, a provision to the effect, that the subcontractor agrees that the Comptroller General or the Department, or any of their duly authorized representatives, shall, until the expiration of three years after final payment under the subcontract, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this paragraph (b) only, excludes (i) purchase orders not exceeding \$2,500 and (ii) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

ARTICLE 30. LABOR PROVISIONS

(a) Convict Labor -- In connection with the performance of work under this lease, the Lessee agrees not to employ any person undergoing sentence of imprisonment at hard labor.

(b) Contract Work Hours Standards Act - Overtime Compensation

This contract, to the extent that it is of a character specified in the Contract Work Hours Standards Act (40 U.S.C. 327-330), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the Secretary of Labor thereunder.

(i) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he is employed on such work to work in excess of eight hours in any calendar day or in excess of forty hours in such workweek or work subject to the provisions of the Contract Work Hours Standards Act unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of eight hours in any calendar day or in excess of forty hours in such workweek, whichever is the greater number of overtime hours.

(ii) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions of paragraph (i), the Contractor and any subcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions of paragraph (i) in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of eight hours or in excess of his standard workweek of forty hours without payment of the overtime wages required by paragraph (i).

(iii) Withholding for unpaid wages and liquidated damages. The Contracting Officer may withhold from the Government Prime Contractor, from any moneys payable on account of work performed by the Contractor or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions of paragraph (ii).

(iv) Subcontracts. The Lessee shall insert paragraphs (i) through (iv) of this clause in all subcontracts, and shall require their inclusion in all subcontracts of any tier.

(v) Records. The Lessee shall maintain payroll records containing the information specified in 29 CFR 516.2(a). Such records shall be preserved for three years from the completion of the contract

(c) Overtime and Shift Premiums.

(i) Insofar as practicable the Lessee shall perform any work required under this lease which is at the expense of the Government without the use of overtime or multi-shift labor for which premium payments are required, except to the extent that such payments either (A) are approved in writing on behalf of the Government by the Contracting Officer or (B) are paid for work-

- (1) necessary to cope with emergencies such as those resulting from accidents, natural disasters, or breakdowns of equipment;
- (2) by indirect labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, operation of utilities, or accounts;
- (3) in the performance of tests, laboratory procedures, loading or unloading of transportation media, and operations in flight or afloat, which are continuous in nature and cannot reasonably be interrupted or otherwise completed; or
- (4) which will result in lower overall cost to the Government.

(ii) The cost of overtime premiums or shift premiums otherwise allowable under (i) above shall be allowed only to the extent the amount thereof is reasonable and properly allocable to the work under this lease.

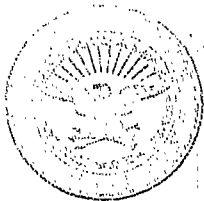
ARTICLE 31. DEFINITIONS -- As used throughout this lease the following terms shall have the meanings set forth below:

(a) The term "Department" means the Secretary of the Navy, the Commander, Naval Ship Systems Command of the Department of the Navy, the Contracting Officer, and such other duly authorized representative or representatives specified in the Special Provisions, which the Secretary or the Commander, Naval Ship Systems Command may designate from time to time.

(b) The term "Secretary" means the Secretary, the Under Secretary or any Assistant Secretary of the Department of the Navy; and the term "his duly authorized representative" means any person or persons or board (other than the Contracting Officer) authorized to act for the Secretary.

(c) The term "Contracting Officer" means the person executing this lease on behalf of the Government and any other officer or civilian employee who is properly designated Contracting Officer; and the term includes, except as otherwise provided in this contract, the authorized representative of a Contracting Officer acting within the limits of his authority.

ARTICLE 32. NOTICES -- No notice, order, direction, determination, requirement, consent or approval under this lease shall be of any effect unless in writing.



DEPARTMENT OF THE NAVY
BUREAU OF SHIPS
WASHINGTON 25, D. C.

IN REPLY REFER TO

Contract NObs-4315
Supplement No. 2

NObs-4315
Ser 158-5

21 JAN 1965

The Port of Portland
Portland,
Oregon

Gentlemen:

Reference is made to Contract NObs-4315, as supplemented, relating to the lease of the Floating Dry Dock YFD-69. The parties hereto have agreed to an additional extension of the term of the lease for a five (5) year period commencing 1 February 1965 on the terms and conditions hereinafter prescribed.

Accordingly, it is hereby proposed to modify and supplement Contract NObs-4315, as supplemented, as follows:

1. ARTICLE 2. TERM.

Delete Article 2 and in lieu thereof insert the following:

"The term of this lease is extended for a five (5) year period commencing 1 February 1965 unless sooner terminated as herein provided. Upon ninety (90) days written notice by the Lessee to the Department prior to the expiration of the extended term, the lease may be extended for two (2) additional terms of five (5) years each upon such terms as may be mutually agreed upon."

ARTICLE 5. RENT.

Delete paragraph (b) of Article 5 and in lieu thereof insert the following:

"(b) The Amount To Be Paid shall be computed as follows:

An annual rental based upon the higher of the following methods of computation:

- (i) A lump sum of \$80,000; or
- (ii) An amount computed at the rate of 40% of the minimum charges set forth below for the actual number of days a vessel occupies the Dry Dock or 40% of the actual charges made by the Lessee, whichever amount is greater.

Table of Computation Sums

	<u>Haul Day</u>	<u>Lay Day</u>
Vessels having a registered gross tonnage of 1,500 tons or over	\$0.25 per registered gross ton	\$0.23 per registered gross ton
Vessels having a registered gross tonnage under 1,500 tons	\$1.50 per foot	\$1.25 per foot

Minimum amount per drydocking \$100

"For the purpose of computing rental due under this paragraph a Haul Day shall be deemed to be the first twenty-four continuous hours or less of a drydocking period. A Lay Day shall constitute each succeeding period of twenty-four continuous hours or less following a Haul Day. A Haul Day shall commence when the stem of the vessel enters the mouth of the Dry Dock. Any fractional part of a day shall, for the purposes of computations herein, be deemed to be a full day except as to Lay Days which shall be pro-rated in quarter days up to the time the drydocked vessel leaves the mouth of the Dry Dock. A Saturday, Sunday or Legal Holiday shall not be deemed a Haul or Lay day unless work is performed on such days or unless the Lessee makes a charge for such days."

ARTICLE 6.

MAINTENANCE.

the following: Delete paragraph (b)(1) and in lieu thereof insert

"(1) At the time of each annual inspection the Dry Dock shall be careened sufficiently to expose as much as possible of the exterior underwater hull

in order to determine its condition. When the inspection by careening discloses deterioration of the underwater exterior hull, the Dry Dock shall be drydocked and necessary repairs to the underwater hull and the paint coatings thereon shall be made as required, or as directed by the Department. The Dry Dock shall be drydocked as a requirement of normal maintenance under this Article not later than 30 June 1965 and necessary repairs and painting of underwater hull shall be performed as directed by the Department. In the event drydocking, painting and repairs of underwater hull are not accomplished by 30 June 1965 then the Department may perform at Lessee's expense, drydocking, painting and underwater hull repairs, or the Government may, at its option require the Lessee to pay in lieu thereof, \$125,000 representing the estimated costs of such drydocking, painting and underwater hull repairs. The foregoing obligations shall continue notwithstanding any termination of this lease prior to 30 June 1965. The Lessee shall, in addition to the foregoing drydocking requirement, drydock the Dry Dock once more during the term of this lease when directed by the Department, as a requirement of normal maintenance under this Article and make necessary repairs to the underwater hull and the paint coatings thereon. In the event the Department shall not direct the Lessee to so drydock the Dry Dock or any section thereof prior to the expiration of the term of this lease, then the Lessee shall pay to the Government on or before 31 January 1970 a sum equal to the estimated cost of drydocking the Dry Dock or any section thereof not so drydocked. Such estimated cost shall be determined by agreement between the Contracting Officer and the Lessee. In the event the parties are unable to agree thereto, the dispute shall be resolved in accordance with the provisions of Article 26 of this lease."

2. Except as herein modified, Contract NObs-4315, as amended and supplemented, shall remain in full force and effect.

NObs-4315
Sup. No. 2

If the foregoing is satisfactory to you, please indicate your acceptance by signing and returning to the Chief of the Bureau of Ships, three (3) of the four (4) executed counterparts of this Supplement. Upon such acceptance, Contract NObs-4315, as amended and supplemented, shall stand further amended and supplemented as herein proposed effective as of 1 February 1965.

Sincerely yours

J. L. Hediger

F. H. Hediger
Contracting Officer
Bureau of Ships /

ACCEPTED: 26th day of January, 1965

PORT OF PORTLAND

By *George H. Baldwin*
GEORGE H. BALDWIN, General Manager

(In addition to signature, type name and office held.)

APPROVED *Repton* *L. Platum*
of *Chief* for The *Port of* *Portland*

Copy to:
INDMAN-13ND
NAVFINCEN WASHDC
NAVREGFINCEN, OAK CALIF
NAAO SANFRAN
NBAO SEATTLE
NAVFINCEN CLEVE
ONM (INS BR)
BUSHIPS:
Code 158
761A

1-26-65
at American
E. M. Burrell



DEPARTMENT OF THE NAVY
BUREAU OF SHIPS
WASHINGTON 25, D. C.

IN REPLY REFER TO

Contract NObs-4315
Supplement No. 1

NObs-4315
Ser 158-60

Port of Portland
Portland, Oregon

Gentlemen:

Reference is made to Contract NObs-4315 which relates to the lease of the Floating Dry Dock YFD-69. In connection with the computation of rental under Article 5(b)(ii) a difference of opinion has arisen between the parties relating to the computation of fractional lay days. This dispute is now before the Armed Services Board of Contract Appeals from the Contracting Officer's decision requesting additional rental of \$22,063.19 for the period from 1 February 1960 to 31 January 1963. In order to resolve the dispute between the parties and to dispose of the pending Appeal, it is proposed to modify Contract NObs-4315 as follows:

1. Article 5. Rent.

Delete the third sentence from the last subparagraph of (b)(ii) and substitute in lieu thereof the following:

"Any fractional part of a day shall, for the purposes of computations herein, be deemed to be a full day except as to lay days which shall be pro-rated in quarter days (i) for the period from 1 February 1960 through 31 July 1961, upon completion of work upon a vessel being drydocked, and (ii) for the period on and after 1 August 1961, when the drydocked vessel leaves the mouth of the Dry Dock."

2. Payment

Within ten (10) days after the execution of this Supplement No. 1, Lessee shall pay to the Government, the sum of \$11,948.38, the additional rental due for the period from 1 August 1961 to 31 January 1963.

3. Dismissal of Appeal

Upon execution of this Supplement No. 1, Lessee shall request the Armed Services Board of Contract Appeals to dismiss the appeal, ASBCA No. 9696, with prejudice and without costs to either party.

NObs-4315
Ser 158-60

4. Except as herein modified, Contract NObs-4315, as amended and supplemented, shall remain in full force and effect.

If the foregoing is satisfactory to you, please indicate your acceptance by signing and returning to the Chief of the Bureau of Ships, three (3) of the four (4) executed counterparts of this Supplement. Upon such acceptance, Contract NObs-4315, as amended and supplemented, shall stand further amended and supplemented as herein proposed effective as of 1 August 1961.

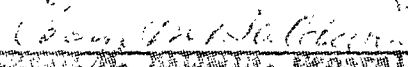
Sincerely yours,



ACCEPTED: 11th day of June 1964

PORT OF PORTLAND

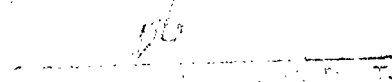
PAUL KEDIGER
Sponsoring Officer
Bureau of Ships

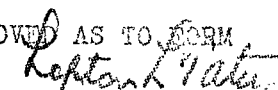
By 
William H. Sullivan, General Manager

(In addition to signature, type name
and office held)

Copy to:
ASTINDMAN SEATTLE
NAVFINCEN WASHDC
NAVREGFINCEN, OAKLAN
NAAO SANFRAN
NBAO SEATTLE
NAVFINCEN CLEVE
ONM (Ins Br)
BUSHIPS:
Code 158
761A

NOTED:



APPROVED AS TO FORM

of Counsel for The Port of Portland

Carl Propp
FILE W/NAVY
CONTRACTS.

February 14, 1979

United States Department of the Navy
Commanding Officer
U.S. Navy Finance Center
Washington, D.C. 20360

CONTRACT 0024-70-L0010, YFD-69

We are enclosing the Port of Portland's check in the amount of \$104,367.30 computed in accordance with Article 5 of Contract 0024-70-L0010, as extended. In accordance with Article 6 of this contract, regular maintenance expenditures on YFD-69 totaled \$29,005 for the contract year.

Copies of this letter with supporting statements are being sent to the Supervisor of Shipbuilding, Conversion and Repair, U.S.N. 13th Naval District, Seattle, Washington, and to the Defense Audit Agency, Seattle, Washington.

Douglas R. Medlyn
Controller

Enclosure

cc: Supervisor of Shipbuilding
Conversion and Repair
U.S.N. 13th Naval District
Seattle, WA 98115

Defense Contract Audit Agency
185 Airport Way, South
Seattle, WA 98134

FA28B-R

DRM:1Tub7:vjm

PSY500006225

THE PORT OF PORTLAND

SCHEDULE OF VESSELS DOCKED ON YFD-69

CONTRACT YEAR ENDED JANUARY 31, 1979

PAGE 1 OF 3 PAGES

DOCKING NUMBER	VESSEL NAME	LENGTH IN FEET	TOTAL TONS	VESSELS 1500 TONS AND OVER			VESSELS UNDER 1500 TONS			IDLE TIME 40% x \$.50 DAYS x LENGTH		TOTAL DUE PER CONTRACT	40% OF ACTUAL CHARGES	DUE TO THE U.S.N.
				HAUL DAY 40% x .28 x TONS	LAY DAY 40% x .26 DAYS x TONS x DAYS		HAUL DAY 40% x 2.00 x LENGTH	LAY DAY 40% x 1.75 DAYS x LENGTH						
9699-1720	Barge 602	242'	1,677	187.82	2.75	479.62				2	96.80	764.24	1,143.98	1,143.98
9704-1721	USNS Dutton	455'	7,606	851.87	7	5,537.17				2	182.00	6,571.04	7,836.15	7,836.15
9707-1723	Barge SDS-1	184'	1,060				147.20	2.25	289.80			437.00	506.37	506.37
9708-1724	Barge Bandon	276'	3,478	389.54	2.25	813.85						1,203.39	1,230.76	1,230.76
9712-1725	SS Bald Butte	665.66'	19,386	2,171.23	10.50	21,169.51				3	399.40	23,740.14	26,277.41	26,277.41
9717-1726	Tug Resolute	200'	298				160.00	2.50	140.00			300.00	638.00	638.00
9718-1727	SS Avila	551.16'	11,486	1,286.43	2.25	2,687.72				2	220.47	4,194.62	4,213.47	4,213.47
9719-1728	SS Pacific Carrier	579.83'	12,487	1,398.54	3.50	4,545.27						5,943.81	7,517.18	7,517.18
9720-1729	SS Austin	633.50'	15,354	1,719.65	5.50	8,782.49				2	253.40	10,755.54	8,736.94	10,755.54
9724-1730	Salvage Chief	203.50'	725				162.80	9	1,282.05	4	162.80	1,607.65	1,978.66	1,978.66
9725-1731	Lompoc	526.50'	10,448							4	421.20	421.20	3,521.86	3,521.86
9726-1732	ZBO-260	260'	2,045	229.04	2	425.36				5	260.00	914.40	1,086.18	1,086.18
9728-1733	M/V Matanuska	408'	2,458	275.30	3	766.90				1	81.60	1,123.80	1,236.86	1,236.86
Sub-TOTAL														67,942.42

PSY500006226

THE PORT OF PORTLAND

SCHEDULE OF VESSELS DOCKED ON YFD-69

CONTRACT YEAR ENDED JANUARY 31, 1979

PAGE 2 OF 3 PAGES

DOCKING NUMBER	VESSEL NAME	LENGTH IN FEET	TOTAL TONS	VESSELS 1500 TONS AND OVER			VESSELS UNDER 1500 TONS			IDLE TIME 40% x \$.50 DAYS x LENGTH		TOTAL DUE PER CONTRACT	40% OF ACTUAL CHARGES	DUE TO THE U.S.N.
				HAUL DAY 40% x .28 x TONS	LAY DAY		HAUL DAY 40% x 2.00 x LENGTH	LAY DAY						
					DAYS	40% x .26 x TONS x DAYS		DAYS	40% x 1.75 x LENGTH					
9729-1734	SS Lion of California	514.67	10,473	1,172.98	3	3,267.58				2	205.87	4,646.43	5,230.71	5,230.71
9733-1735	SS Inger	626'	14,192	1,589.50	.25	368.99						1,958.49	2,112.08	2,112.08
9742-1736	PBM-21	210'	1,060				168.00	1.50	220.50			388.50	533.40	533.40
9744-1737	Barge Umpqua #5	240'	1,825	204.40	11	2,087.80				4	192.00	2,484.20	3,243.50	3,243.50
9749-1739	M/V Star K	560.54	15,474	1,733.09	1	1,609.30						3,342.39	2,520.05	3,342.39
9754-1740	Dredge Oregon	180'	749				144.00	3	126.00	2	72.00	342.00	792.00	792.00
9758-1741	Dock Unit	276'	3,776	422.91								422.91	573.95	573.95
9759-1742	Piggyback Units	576'	806				460.80					460.80	633.60	633.60
9760-1743	Sauce Barge #12	150'	806				120.00	2.25	236.25			356.25	426.20	426.20
9764-1744	Tug Hunter	132.75'	199				106.20	.50	46.46			152.66	209.74	209.74
9769-1745	Dredge Biddle	351.67'	4,988	558.56	2.25	1,167.19						1,725.75	1,881.33	1,881.33
9770-1746	Dredge Harding	308.17'	4,045	453.04	7.5	3,155.10				2	123.27	3,731.41	3,735.04	3,735.04
9774-1747	Barge Skipanon	243'	1,804	202.05	2.5	469.04				1	48.60	719.69	960.37	960.37
Sub-TOTAL														91,616.73

PSY500006227

THE PORT OF PORTLAND
SCHEDULE OF VESSELS DOCKED ON YFD-69
CONTRACT YEAR ENDED JANUARY 31, 1979

PAGE 3 OF 3 PAGES

DOCKING NUMBER	VESSEL NAME	LENGTH IN FEET	TOTAL TONS	VESSELS 1500 TONS AND OVER			VESSELS UNDER 1500 TONS			IDLE TIME 40% x \$.50 DAYS x LENGTH		TOTAL DUE PER CONTRACT	40% OF ACTUAL CHARGES	DUE TO THE U.S.N.
				HAUL DAY 40% x .28 x TONS	LAY DAY 40% x .26 DAYS x TONS x DAYS		HAUL DAY 40% x 2.00 x LENGTH	LAY DAY 40% x 1.75 DAYS x LENGTH						
9776-1748	Dredge Harding	308.17	4,045	453.04	7	2,944.76				4	246.53	3,644.33	4,835.28	4,835.28
9782-1749	Barge Umpqua #6	240'	1,825	204.40	7.25	1,376.05				2	96.00	1,676.45	2,158.80	2,158.80
9787-1750	Barge Umpqua #7	240'	1,825	204.40	7.25	1,376.05				4	192.00	1,772.45	2,302.80	2,302.80
9789-1751	Dr. Ollie Riedel	175'	1,006				140.00	2.25	275.63	3	105.00	520.63	654.10	654.10
9790-1752	Spud Barge	110'	300				88.00	2	154.00	3	66.00	308.00	439.40	439.40
9793-1753	Barge #6	195'	936				156.00	5	682.50			838.50	1,150.50	1,150.50
9798-1754	Barge SDS-2	180'	1,080				144.00	1.50	189.00			333.00	457.20	457.20
9801-1755	Drydock Unit	315'	1,076				252.00					252.00	346.50	346.50
9802-1756	Piggyback Unit	424'	2,671	299.15								299.15	405.99	405.99
GRAND TOTAL														\$104,367.30

PSY500006228



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

*Legal Code
You to Lease 10/1
U.S. Navy*

IN REPLY REFER TO
0701B/GNB
N00024-70-L-0010
Ser. 27

CONTRACT N00024-70-L-0010
SUPPLEMENT P00001

REGISTERED
RETURN RECEIPT REQUESTED

MAR 13 1975

Port of Portland
P. O. Box 3529
Portland, Oregon 97708

Gentlemen:

Reference is made to Contract N00024-70-L-0010 providing for lease to you of Floating Dry Dock YFD-69 for a five (5) year term commencing on the 1st day of February 1970. In accordance with Clause 3 of this contract you have given notice to the Department of your intent to exercise your option to extend the term of this contract for an additional period of five (5) years, upon the same terms and conditions, except as to rent for the extended term. To date the parties have not agreed upon such rental for the extended term.

Accordingly, it is proposed that Contract N00024-70-L-0010, as amended, be modified as follows:

1. CLAUSE 3. TERM OF LEASE

Delete said clause in its entirety and in lieu thereof insert the following:

"The term of this lease is hereby extended for a period of five years commencing on 1 February 1975, unless sooner terminated, as provided herein."

2. CLAUSE 5. RENT

Delete paragraph (a) of Clause and in lieu thereof insert the following:

"(a) The lump sum annual rent referred to in Article 5(b)(1) of the General Provisions is One Hundred and Forty-Two Thousand Five Hundred Dollars (\$142,500), such being the rental figure for the term hereof expiring 31 January 1975, which rental figure shall be applicable to the term hereof commencing 1 February 1975: provided, however, upon negotiations of a rental figure for the term ending 31 January 1980, such terms and conditions shall be retroactive to 1 February 1975."

PSY500006229

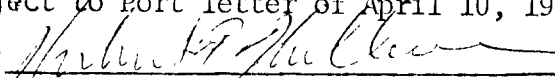
0701B/CNB
N00024-70-L-0010
Ser 27

3. Except as herein modified and supplemented, Contract N00024-70-L-0010, as amended, shall remain in full force and effect.

If the foregoing is satisfactory to you, please indicate your acceptance by signing and returning to the Commander, Naval Sea Systems Command, Attention SEA 0701B, three (3) of the four (4) executed counterparts of this supplement. Upon such acceptance, Contract N00024-70-L-0010, as amended and supplemented, shall stand further amended and supplemented as herein proposed.

Sincerely yours,


ACCEPTED: 10th day of April, 1975
subject to Port letter of April 10, 1975

BY: 
(In addition to signature, type name
and office held.)

Robert F. Wallace, President

BY: 

Lee A. Underwood, Asst. Secretary


HARRY JACOBS
Contracting Officer
Naval Sea Systems Command



DEPARTMENT OF THE NAVY
NAVAL SHIP SYSTEMS COMMAND
WASHINGTON, D. C. 20360

07511:GHB:amj
N00024-70-10010
Ser 105-07511

22 MAY 1970

Mr. A. J. Heineman
Assistant General Manager
Port of Portland
Portland, Oregon 97208

Dear Mr. Heineman:

Enclosed is a copy of the fully executed Contract N00024-70-10010 covering the lease of Floating Dry Dock YFD-69.

Sincerely,

H.R. BENSON
Director, Contractor
Operated Facilities Division
By direction of Commander,
Naval Ship Systems Command

Encl: One (1) Executed Copy of
Contract N00024-70-10010

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.	X	
Attorney		
Spec. Projects		
Public Affairs		
Aviation		
Finance/Admin.		
Ind. Devel.		
Marine		X
Technical Serv.		
No. of Copies 0		

PSY500006231



*original - hand delivered 1/22/70.
original to EWB for vault*

DEPARTMENT OF THE NAVY
NAVAL SHIP SYSTEMS COMMAND
WASHINGTON, D.C. 20360

05-721.011

cc: agh

EWB

OB

IN REPLY REFER TO

OOJ:GRL:mmj

NObs-4315

Ser 47

Contract NObs-4315
Supplement No. 4

8 1 JAN 1970

The Port of Portland
Portland, Oregon

Gentlemen:

Reference is made to Contract NObs-4315 made as of 1 February 1965, as amended, between your company and the Government setting forth the terms and conditions of the lease to you of Floating Dry Dock YFD-69. You have requested that the term of the lease be extended for a five (5) year period upon the expiration of the current term, 31 January 1970.

To allow for the conclusion of negotiations with respect to the terms and conditions for any extended period, it is hereby proposed that an interim ninety (90) days extension of the term be provided subject to the terms and conditions set forth below.

Accordingly, it is hereby proposed that Contract NObs-4315, as amended, and supplemented, be further modified as follows:

1. Article 3. Term.

The term of this lease is hereby extended for a period of ninety (90) days commencing with 1 February 1970; provided, however, that in the event the term shall be extended for an additional five (5) year period from 1 February 1970, this interim extension shall be superseded by the provisions of the extended term.

2. Except as herein modified, Contract NObs-4315, as amended, shall remain in full force and effect..

PSY500006232

OOJ:GRL:mmj
NObs-4315
Ser 47

If the foregoing is satisfactory to you, please indicate your acceptance by signing and returning to the Commander, Naval Ship Systems Command, three (3) of the four (4) executed counterparts of this amendment. Upon such acceptance, Contract NObs-4315, as amended, shall stand further amended as herein proposed.

Sincerely yours,

ACCEPTED: 21st day of January 1970

PORT OF PORTLAND

By A. J. Heineman
A. J. Heineman, Asst. General Manager
(In addition to signature, type name
and office held)

H. R. Benson
Contracting Officer
Naval Ship Systems Command

Copy to:
SUPSHIP THIRTEEN
NAVFINCEN WASHDC
NAVMAT (0242)
NAVSHIPS:
OOJ2
OOJ3
07513

630-4.1

McC
McKeown
Ralph
home
checked
6-24-80
RFB
6-24-80
please follow up and prepare a report for Regier to send to Navy
Thanks
Chase

	Acting	Adm.
Commission		
Executive Director		
Deputy Exec. Director		
Asst. Exec. Director		
Attorney		
Aviation		
Community Development		
Engineering Services		
Finance/Administration		
Human Resources		
Information Systems		
Legal Services		
Logistics		
Medical Services		
Public Affairs		
Records Management		
Security		
Training		
Transportation		
Utilities		
Waste Management		
Other		

C. McKeown X
C. Regier X
D. Robson X
R. Bader X
J. Mackey X
P. Boyle X

-7-

DEPARTMENT OF THE NAVY
 SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
 SEATTLE, WASHINGTON 98115

80 JUN 23 A7:46

IN REPLY REFER TO:
 11420
 Ser 460-4122
 19 JUN 1980

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
 To: Distribution List

Subj: Operation of Navy-Owned Leased Floating Dry Docks; advisory to

1. Recently, during routine drydocking of a vessel in a Navy-owned floating dry dock at Pearl Harbor, a chock was torn loose from the afterend of the port wingwall resulting in the accidental death of a yard workman.
2. Based on the above, it is recommended that each Lessee of a Navy-owned floating dry dock inspect all line handling deck fittings and foundations for structural integrity and that current line handling procedures be reviewed to prevent possible future accidents.

J. D. Winston
 J. D. WINSTON
 By direction

Distribution List:

- LSCC Seattle (YFD-23, AFDL-45)
- MARCO Seattle (AFDL-2)
- Port of Portland (YFD-69)
- SEA-TAC Alaska Shipbldg (AFDL-12)
- Todd Pacific Shippyds, Seattle Div (YFD-70, YFD-54)

Copy to:
 NAVSEA (070424)



WILLAMETTE IRON and STEEL COMPANY

A DIVISION OF GUY F. ATKINSON COMPANY

PORTLAND
(503) 226-5535
CABLE ADDRESS - WILLAMETTE

2800 N.W. FRONT AVENUE
P.O. BOX 10247
PORTLAND, OREGON 97210

RICHMOND
(415) 233-7500
CABLE ADDRESS - WISCO

MD5189/Gen
27 July 1977

	Action	Info
Commission		
Executive Director		
Deputy Exec. Director		
Asst. Exec. Director		
Attorney		
Aviation		
Community Development		
Engineering Services		
Finance/Administration		
Marine Development		
Carl Propp	X	
Dan Thibault		X
Don Erick		X

The Port of Portland
P.O. Box 3529
Portland, OR 97208

Attention: Mr. Carl Propp

Subject: Commercial Drydocking Facilities; Safety Certification
for docking, U.S. Navy

(3 all)

- Encl. (1) Copy of WISCO ltr MD5150/Gen of March 11, 1977
(2) Copy of Port of Portland ltr of March 15, 1977
(3) Copy of WISCO ltr MD5153/Gen of March 18, 1977
(4) Copy of SupSHIP, USN, ltr 11420/5100 Ser 460-3571 of July 13, 1977
w/ enclosure (1) attached

Gentlemen:

By enclosure (1) WISCO requested technical and operational data on your docking facilities as required by MIL-STD1625 for submittal to the Supervisor of Shipbuilding, USN, Seattle. By Enclosure (2) your activity furnished the requested data. WISCO submitted the Port of Portland's Certification report for Drydock 1,2 & 3 (Encl. (3) to SupShip, Seattle, for approval.

Enclosure (4) was received by WISCO, which informed us that their review of the Certification report revealed certain deficiencies on which they would require additional data. Attached to Enclosure (4) is the list of additional information requested.

We would appreciate your perusal of enclosure (4) and your early submittal of the list of information requested, so that we can forward to the Supervisor of Shipbuilding, USN, Seattle for their approval action. It is suggested that the format of your reply to the information requested be prepared in the same paragraph sequence as the "List of Information Required" for clarification purposes.

Inasmuch as Sept. 1, 1977 is still the target date for approved certifications, your early reply to the above request would certainly be appreciated.

Very truly yours,

WILLAMETTE IRON AND STEEL COMPANY

W.F. Wild

W.F. Wild, Manager

ESTABLISHED 1865

PSY500006235



WILLAMETTE IRON and STEEL COMPANY
MARINE DIVISION

PORTLAND
224.9720
CABLE ADDRESS - WILLAMETTE

2800 N. W. FRONT AVENUE
PORTLAND, OREGON 97210

RICHMOND
233.7500
CABLE ADDRESS - WISCO

MD5150/Gen
11 March 1977

Port of Portland
P.O. Box 3529
Portland, OR 97208

Attention: Mr. Carl Propp

Subject: Commercial Drydocking Facilities; Safety Certification
for docking U.S. Navy ships

Enclosure: (1) SupShip ltr 11420/5100/Ser-460-995 of 4 Mar. 77 with
Mil-Std 1652A(SH) of 7 Sept. 76 enclosed.

Gentlemen:

Please find forwarded enclosure (1), of which we are required to comply with
by Sept. 1, 1977 or our bids could be declared "Non-responsive".

I would appreciate it if you will peruse enclosure (1) and respond to us, so
we may forward to SupShip, Seattle for approval.

If you consider a direct approach on your part (which I think you have in
the past instigated) a better way to secure approval, please let us know so
that we may reply to enclosure (1).

Very truly yours,

WILLAMETTE IRON AND STEEL COMPANY

Original signed by W.F. Wild

W.F. Wild, Manager

/j1

March 15, 1977

Port of Portland

W. F. Wild
Manager
WISCO
2800 NW Front
Portland, Oregon 97210

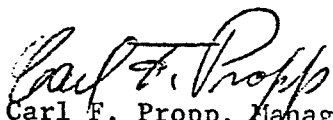
Box 3529 Portland, Oregon 97208
503/233-8331
TWX: 910-454-6151

Dear Mr. Wild:

We are forwarding to you the technical and operational material as required by MIL-STD 1625. This information was compiled to conform with the original MIL-STD. There have been some deletions since then, however, we feel this is adequate.

We recommend early submittal to the Navy, so that any necessary corrections of either the manuscript or the drydocks can be made before the MIL-STD is invoked on September 1, 1977.

Sincerely,


Carl F. Propp, Manager
Swan Island Ship Repair Yard

CFP:ja



WILLAMETTE IRON and STEEL COMPANY

MARINE DIVISION

PORTLAND
224.9720
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2800 N. W. FRONT AVENUE
PORTLAND, OREGON 97210

RICHMOND
233.7500
CABLE ADDRESS - WISCO

MD5153-Gen
18 March 1977

C
O
P
Y

Supervisor of Shipbuilding, Conversion
and Repair, USN
Seattle, WA 98115

Attention: V.J. Manara, Captain, USN

Subject: Commercial Drydocking Facilities; Safety Certification
for Docking U.S. Navy ships.

Reference: (a) SupShip ltr 11420/5100 Ser #460-995 of 4 Mar. 1977
(b) Mil-Std 1625A(SH) of 7 Sep. 1976

Enclosure: (1) Port of Portland Facility Certification Report
Drydocks 1, 2 and 3.

Gentlemen:

Reference (a) has been received by this activity and in accordance with the requirements contained therein, we are submitting enclosure (1), which has been prepared in accordance with ref. (b), for your approval.

It should be noted that drydocks #1, #2 and #3 are publically owned facilities and are used by shipyards in the Portland area that have a Master Ship Repair Contract.

Inasmuch as Sept. 1, 1977 is the scheduled target date for approved certifications to be a matter of record in your office, your early approval action will be appreciated.

Very truly yours,

WILLAMETTE IRON AND STEEL COMPANY

Original signed by W.F. Wild

W. F. Wild, Manager

cc: Carl Propp
Port of Portland

ENCL: (4)
w/ATTACHED
ENCL: (1)

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:
11420
5100
Ser 460-3571
13 July 1977

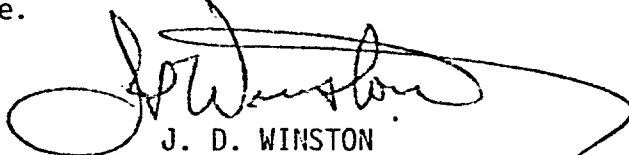
From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Willamette Iron and Steel Company, Portland

Subj: Willamette Iron & Steel Company Drydocking Facilities
Certification Report

Ref: (a) WISCO ltr MD5153-GEN of 18 Mar 1977

Encl: (1) List of Additional Information Required

1. Reference (a) submitted information regarding your capability to comply with MIL-STD 1625A (drydock certification report) for review and approval.
2. A review of the report reveals that there are certain deficiencies. Additional data is required for Commander, Naval Sea Systems Command to proceed with the certification of the drydock in accordance with the criteria of MIL-STD 1625A(SH) of 7 September 1976.
3. It is requested that the information delineated in enclosure (1) be furnished as soon as practicable, inasmuch as the review process for certification is being held in abeyance pending receipt of this urgent information at the Naval Sea Systems Command Headquarters.
5. The requirements of this letter do not authorize any change in any Government contract. In the event that you consider that these requirements represent a change for which an equitable adjustment is in order, you are to advise the Contracting Officer of the particular technical or contractual requirements regarded as changed, and take no action with regard to such changed requirements until notified, in writing, of the Contracting Officer's response.


J. D. WINSTON
By direction

PSY500006239

MILITARY STANDARD

DRYDOCKING FACILITIES SAFETY CERTIFICATION
CRITERIA FOR DOCKING U.S. NAVY SHIPS



FSC 1950

ENCLOSURE (1)

PSY500006240

MIL-STD-1625A(SH)
7 September 1976

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D. C.

Drydocking Facilities Safety Certification
Criteria for Docking U.S. Navy Ships
MIL-STD-1625A(SH)

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Ship Engineering Center, Center Building, SEC 6124, Prince George's Center, Hyattsville, Maryland 20782 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:

11420
5100
Ser 460-995

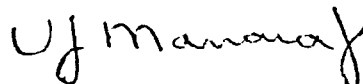
4 MAR 1977

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Distribution List

Subj: Commercial Drydocking Facilities; Safety Certification for
Docking U. S. Navy Ships

Encl: (1) MIL-STD 1625A(SH) of 7 Sep 1976

1. The Commander, Naval Sea Systems Command has invoked facility certification requirements that are mandatory and must be met prior to award of any job order which includes drydocking under the Master Ship Repair Contract for ships undergoing alteration, conversion, or repair in commercial yards.
2. The objective of this facility certification is to ensure the safety of U. S. Navy ships during the docking/undocking operation and while in drydock, when the cycle is performed in commercially-owned facilities or Government-owned facilities leased to the contractor.
3. When drydocking is to be a requirement of the job order, the job order will require full compliance with MIL-STD 1625A and any contractor proposals received for such job order not in full compliance with enclosure (1) will be found nonresponsive. The prospective contractor must certify that his drydocking facilities meet the requirements of and have been certified in accordance with MIL-STD 1625A, enclosure (1).
4. The certifications for drydocking facilities in accordance with enclosure (1) must be submitted to this office as soon as possible in order to preclude a determination of "nonresponsive" bidder. September 1, 1977, is scheduled as the target date for approved certifications to be a matter of record in this office for all Master Ship Repair Contractors conducting drydockings of Navy ships.
5. The requirements of this letter do not authorize any change in any Government contract. In the event that you consider that these requirements represent a change for which an equitable adjustment is in order, you are to advise the Contracting Officer of the particular technical or contractual requirements regarded as changed, and take no action with regard to such changed requirements until notified, in writing, of the Contracting Officer's response.


V. J. MANARA, Jr.

Distribution List

See Page 2

PSY500006242

FOREWORD

This standard presents the criteria that must be met and the type of report to be submitted to certify that drydock facilities are adequate to assure the safety of U.S. Navy ships during the docking/undocking operation and while in dock. In this particular publication the term "drydock facility" covers both new construction building facilities and repair facilities.

This standard is applicable to both commercial and Navy drydocks. Where the term "activity" is used it means either a contractor certifying his own or leased drydock, or the U.S. Navy certifying their own drydock.

The requirements herein are intended primarily to provide certification criteria for facilities for docking conventionally powered ships, and become effective when invoked by an appropriate Government document. This standard will also serve as a partial certification document if invoked for docking nuclear-powered ships. Additional requirements applicable solely to docking nuclear-powered ships will be invoked by the Government to supplement the requirements herein.

This document is applicable for certifying Navy owned floating drydocks, but does not necessarily reflect all of the design requirements of Navy floating drydocks which are required by new design ship specifications.

The term "dockmaster" refers to a contractor's dockmaster in charge of docking. "Docking officer" refers to a Navy officer in charge of docking.

Where terms are used herein such as "submitted", "submitted to the Navy", "provided to the Navy", or "made available for Navy review", the recipient is intended to be:

- (a) The supervisor of shipbuilding, or other designated Navy representative, when a U.S. Navy contractor is preparing the facility certification for his own or leased drydock, or
- (b) The Naval Sea Systems Command, SEA 07, when a Navy activity is preparing the facility certification for its own drydock.

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1. SCOPE

1.1 General. This standard provides the criteria for certification of drydock type facilities for drydocking, building, or launching U.S. Navy ships. The requirements are intended primarily to provide certification criteria for docking conventionally powered ships and become effective when invoked by an appropriate Government document. This standard will also serve as a partial certification document when invoked for docking nuclear-powered ships. Additional requirements applicable solely to docking nuclear-powered ships will be invoked by the Government to supplement the requirements herein.

1.2 Objective. The objective of this facility certification is to assure the safety of the ship during the docking/undocking operation and while in dock. This certification does not cover other requirements of the facility, such as compressed air, steam, electrical, and sewage services; however, these vital systems shall be described in accordance with section 3.1.4. While these items are not covered by this certification, omission does not relieve the activity of the responsibility to provide such services in accordance with other contractual requirements.

1.3 Responsibility. Certification of a facility in no way relieves the activity from responsibility for the safety of the ship while in dock.

1.4 Type of docking facilities. Specific criteria are provided in this document for graving docks, floating docks, marine railways, and vertical lifts. The criteria can be used for general guidance for any unusual drydocking facility which does not fall into the above categories.

1.5 Facility certification interval. The certification to this standard shall be submitted for each facility every five years. In the event major changes are made to the facility within this five-year interval, a revised certification application shall be submitted. In addition to the data submitted every five years, certain data as noted in the specific sections of this standard may be required to be available or to be submitted prior to any particular docking. As an option, following an initial certification in accordance with this standard, the activity may implement a maintenance program providing for a continuous certification without frequent or regular resubmittals, except when significant changes are made, with the stipulation that:

- (a) A formalized and implemented maintenance program exists and be shown to be effective by internal and external Navy audit at 2 1/2 year intervals.
- (b) Operating procedures are maintained in current and self-correcting accuracy as shown by in-process operational verification by internal and external Navy sources.
- (c) Control of design and other system changes are effected through a formalized and implemented Design (or change) Control Board and shown to be effective by internal and external Navy audits at 2 1/2 year intervals.

Recertification shall be required as a result of the following:

- (a) Major overhaul or repair of the drydock.
- (b) Expiration of tenure of facility certification.
- (c) Recognition of the existence of an unsafe condition.

1.5.1 Sustaining facility certification. After certification, the activity shall assure that the facility remains in the "as certified" condition with full consideration being given to normal wear and tear for the period of certification. Sustaining data may be developed from the data and information obtained from optional implemented maintenance program provided in section 1.5.

1.6 Application of criteria. The certification criteria in this standard are based on the types of facilities used to dock most Naval ships over 500 tons. The certification documentation for facilities being certified to dock small Navy ships, such as tugs and barges, (500 tons or less), may be obtained by submitting a certification for the type, size, and physical condition of the facility necessary for the efficient accomplishment of the repair work involved. In certifying facilities for docking small Navy ships, particular attention should be devoted to an examination of the condition of piers, marine railways, drydocks (including floating drydocks), and cranes, as well as an evaluation of water depth. This examination should be carried out by competent and experienced Navy personnel (SOS, or other Navy user as applicable). It is particularly important to determine the capacity and

and physical condition of all marine railways and floating drydocks. The survey team may suggest that the activity submit a certification, signed by an independent certifying authority, of the lifting capacity of his marine railways and floating drydocks. While this is not a requirement for the award of a master contract, such a certification must be submitted prior to the award of any job order which will require the use of these facilities. (A copy of the certification is included in the appendix).

1.7 Submittal of certification data. Data shall be submitted as required by this standard. The material shall be provided in a format that follows, in general, the SAMPLE FACILITY CERTIFICATION REPORT contained in the Appendix. As an option, the activity may furnish data and information similar or equal to that required for this standard and such data and information shall be maintained in good order and made available for Navy review.

1.8 Documentation to be provided. The activity shall submit the following data as part of the facility certification:

- (a) Design data covered in section 3.
- (b) Survey of the present material condition of the facility which is covered in section 4.
- (c) Operating procedures and personnel qualification procedures which are covered in section 5.
- (d) Safety precautions for ship while in dock which are covered in section 6.

1.9 Preparation of facility certification data. Certification data required by sections 3, 5 and 6 may be prepared by the activities own personnel. The initial material survey as required by section 4 shall be made by a qualified independent survey team from firms such as Naval Architectural, Marine Engineering and American Bureau of Shipping (not employees of the certifying activity). A statement of the qualifications of the firm and individuals making the survey shall be included with the facility certification. See section 4.1.8 for details on qualification of survey team. Subsequent material surveys, as required by section 4, may be developed from a formalized maintenance program that is monitored and audited by personnel of an acceptable quality assurance program. See section 1.5 for optional maintenance program.

1.10 Certification based on maximum designed capacity of facility. Normally the facility should be certified for the maximum designed capacity of the facility. If the facility is certified for a loading of less than this amount, the reason for choosing this value shall be explained.

2. REFERENCED DOCUMENTS (Not applicable)

3. DESIGN DATA TO BE PROVIDED

3.1 General requirements.

3.1.1 General guidance. Design data shall be submitted to verify that the as-built condition of the facility is as designed and has the structural strength to drydock a ship having a weight equal to, or less than, the rated capacity of the facility. In the absence of original design data, evidence of capability shall be established in accordance with paragraph 3.1.5. For facilities where drydocking involves lifting the ship, design data shall include calculations demonstrating that the lifting capacity equals the rated capacity. The ability of other systems to support the docking operation shall be shown, including redundancies, if any, in the systems, to provide for reliability. Data to be submitted that are common to all facilities will be discussed in this section. Data peculiar to various types of facilities will be covered in separate sections for each type of facility. During the review of design data by the certifying authority, the activity may be required to supply additional information. If in the course of supplying information, required by the certifying authority, it becomes necessary for the activity to disclose information considered proprietary, the activity should so identify such information. The certifying authority will cooperate with the applicant in the protection of such information.

3.1.2 General information. The general characteristics of the facility shall be provided, including:

- (a) Principal dimensions of the facility.

- (b) Designed and certified docking capacity(ies); see 1.10.
- (c) Name of designer and name of builder of facility and year facility completed.
- (d) Summary of recent overhaul or maintenance work that has been done to the facility. If the facility had previously been certified, records of previous certification may be used.
- (e) Description of alterations made since building of facility which modified the capacity or dimensions.
- (f) Drawings or sketches showing standard blocking arrangement. If graving dock construction permits multiple arrangements of blocking, a description of these arrangements can be substituted.
- (g) Cross section drawings showing side and keel clearances when drydocking maximum size ships.
- (h) History of dockings that demonstrate capacity.
- (i) Hydrographic data to indicate tide ranges, entrance channel width configuration and water depth for ship approach to the facility, and, for a floating drydock, the water depth under the dock when the dock is submerged to maximum draft.

3.1.3 Design analysis substantiating capacity. An analysis shall be submitted to substantiate the certified lifting capacity. This analysis shall be based on a review of the material provided by 3.1.1, the calculated stability data, light dock weight determination, and drawings.

3.1.4 System descriptions. System descriptions shall be provided for systems vital to the operation of the facility. These descriptions shall state the objectives of the system and the methods used to meet the objectives using written materials, drawings, and calculations as appropriate. Particular emphasis shall be given to redundancies provided for reliability and safety.

3.1.5 Structural strength of facility. Design calculations shall be submitted to substantiate that the facility as designed has the structural strength to safely dock a ship having a weight equal to the certified docking capacity. The design calculations shall include the maximum allowable longitudinal bending moment. The design calculations shall clearly state all assumptions and rationale used in the analysis. Evidence that the facility was designed for the certified capacity by a competent engineering organization, or to the rules of a classification society, shall be considered as a substitution for part or all of these structural design calculations. Where specific strength calculations are required for a particular type of facility, these calculations will be specified under the sections covering the various types of facilities. Survey of the facility for material deterioration from the "as designed" dimensions is covered in section 4. In the absence of original design calculations, evidence of capability is to be established by strength calculations of selected critical members such as a typical transverse truss or girder system in a pontoon. In this case, previous dockings which substantiate the ability of the selected critical member to carry the calculated loadings may be referenced.

3.1.6 Firemain. A system description shall be provided for the drydock firemain system of all facilities. This description shall include minimum available pressure, location of connections, size of connections, and the capacity of the system. Water requirements for fireplugs shall be based on a hoseline nozzle pressure of 70 pounds per square inch (lb/in^2) employing solid streams with 100 feet of hose. The minimum capacity shall be 200 gallons per minute (gal/min) per 100 feet of docked ship length.

3.1.7 Ships damaged during drydockings. If during the last five years, an incident has occurred resulting from facility design or procedural deficiencies which caused at least \$25,000 damage to a ship being drydocked, the incident shall be fully explained in the certification data package. Changes in procedure or alterations to the facility which were accomplished as a result of such an incident shall be fully described.

3.2 Floating drydocks.

3.2.1 Stability. The calculated stability data referred to in 3.1.3 shall be provided as a part of the initial facility certification and need only be updated in case of changes, at which time revised stability data shall be furnished.

3.2.2 Stability during a particular ship docking. In addition to the data required for the five-year certification, stability data shall be made available to the Navy prior to each individual ship docking for the particular ship/dock system upon receipt of the following information from the Navy:

- (a) Docking drawing for the particular ship. Class docking drawing to be corrected for each individual case.
- (b) Current light ship weight and centers.
- (c) Hydrostatic curves.
- (d) Trim and Stability booklet or loading manual.
- (e) Tank and cargo conditions at time of docking.
- (f) Light ship weight curve.

3.2.3 Stability data. Stability data shall be provided for all modes of operation. These modes include the following five phases shown on figure 1.

Phase (1) - Just prior to initial touchdown. In this phase, the ship is floating independently and the drydock is in the submerged condition before the ship bears on the blocks.

Phase (2) - Partial liftoff. This phase begins as the ship starts bearing on the blocks and part of the ship's weight is supported by the floating dock.

Phase (3) - Ship keel at water level. This phase begins when the ship's keel is about to leave the waterplane.

Phase (4) - Top of pontoon at water level. This phase is when the water level between the wing wall is just above the top of the pontoon.

Phase (5) - Normal operating condition. Top of pontoon is above the water level. Liquid ballast is at a minimum.

3.2.3.1 The data submitted shall include the principal dimensions of the dock, the principal dimensions of the ship being docked, the condition of loading of the dock and the ship, the displacement of the dock and the ship, the free surface effects, the centers of gravity, and the GM of the ship/dock system. The minimum GM for the certified capacity of the dock shall not be less than the value shown on figure 2. The displacement and center of gravity of the dock shall be determined by an inclining or a weight and center calculation. The weight estimate shall be in sufficient detail to support the drydock displacement and KG values.

3.2.4 Intact and damage stability and buoyancy requirements.

3.2.4.1 Wind forces. Stability data, shall be provided to demonstrate that the ship/dock system when exposed to high winds will not list over 15 degrees. The stability shall be based on the normal docked condition with the ship docked and the deck of the pontoon above the level (Phase (5) in figure 1). The stability data should be calculated for the maximum sail area condition of the largest ship for which the facility is certified. High blocks used for sonar domes shall be used in the calculations if this produces a maximum windage condition. A high wind is considered as one of 90 knots. The following formula may be used in the calculations:

$$\text{Heeling arm due to wind} = \frac{0.004 V^2 A l \cos^2 \theta}{2240 \times \text{displacement}}$$

where: A = projected sail area, sq ft of the drydock and the projecting portion of the drydocked ship
l = lever arm from half draft to centroid of sail area, ft
V = nominal wind velocity, knots
 θ = angle of heel

The adequacy of stability under high wind conditions is based on a comparison of the ship/dock system righting arm curve and a curve of wind heeling arm versus angle of heel. In addition to the calculation required for the condition phase (5) of figure 1, the wind force, which will cause a 15 degree list when the ship/dock system has minimum stability during the docking (or undocking) operation, shall be calculated for the certified lifting capacity. This information shall be provided in the certification data and to the dock-master or docking officer as part of the information furnished in section 5.

3.2.4.2 Stability and freeboard. The dock shall meet the following requirements:

- (1) The floating drydock shall be able to withstand the following extent of flooding without heeling to more than 15 degrees or submerging the margin line:
 - (a) In the deballasted condition with ship on blocks, two main subdivision compartments flooded.
 - (b) In the ballasted-down condition, one main subdivision compartment flooded.
- (2) In the undamaged ballasted-down condition, there shall exist at least three feet of freeboard.

Calculations shall be submitted which demonstrate the dock's ability to meet the above requirements. In cases where a dock does not meet these requirements, a request for a waiver shall be made.

3.2.5 Lifting capacity and pontoon deck freeboard. An analysis demonstrating the lifting capacity of the drydock shall be submitted as provided for in 3.1.3. The maximum lifting capacity of the drydock shall be calculated by using the minimum freeboard in association with the light dock weight determination. The minimum acceptable freeboard at the lowest point of the pontoon deck of the dock (excluding any dock pits) with the ship lifted shall be 12 inches for docks of 12,000 tons capacity and below, and 18 inches for docks of greater than 12,000 tons capacity.

3.2.6 Ballasting and deballasting times. Designed times for watering and dewatering of the drydock shall be furnished. The operating guidelines shall include specific measures to be taken to avoid loss of control of the dock to cope with emergencies.

3.2.7 Ballasting and deballasting systems. System descriptions shall be provided showing number and arrangement of pumps, valves, piping systems, and other aspects of the ballasting and deballasting systems. Pump capacities, pumping redundancies, and cross-connect capabilities shall be shown. Sufficient cross piping or sluicing shall be provided to cover the possible failure of a pump or driver. Failure of a pump shall not put the dock out of operation or cause damage to either the dock or the ship in dock. In a pump-controlled dock where a separate pump is provided in each ballast compartment, an emergency cross-connection system shall be provided to allow deballasting or ballasting with a pump out of operation (at a reduced rate). In a valve-controlled dock, more than one pump shall be able to take suction from a given pump manifold serving multiple ballast compartments. In sectional docks, the ballast and deballast piping systems shall be confined to a specific section and not dependent on system connections to other sections of the dock. Where redundant pumps, cross-connections or sluicing arrangements are not provided, proven operating procedures may be substituted to prevent damage to the docked ship or drydock. When alternate or emergency power source is not provided as required by paragraph 3.2.8, sufficient personnel shall be stationed on the dock during dock/undocking operations to safely manually complete the evolution in the event of loss of power.

3.2.8 Power sources. System descriptions shall be provided showing normal and emergency power sources. When ballasting and deballasting pumps are not independently powered (an example of an independently powered unit is a diesel engine driven pump), they shall be provided with a dependable source of power. Where shore power is the principal source of power, emergency power should be available to maintain control of the dock and safe conditions regardless of when the shore power is lost during the docking operation. If a dock is independent of shore power, it shall be capable of operations at reduced pump rates with one generator inoperative. Fuel for drydock machinery shall be available for more than one cycle of the dock. Where an approved operational procedure and sufficient personnel are accepted as an alternate to providing cross-connections or redundant systems in accordance with paragraph 3.2.7, any power consuming system or indicators, which are required by that operational procedure, shall have an emergency power source.

3.2.9 Ballast-deballast control. System descriptions shall be provided showing valve and pump control systems and both normal and alternate methods.

- (a) **Pump-controlled docks.** Valves may be manually controlled from the vicinity of the pumps or remotely from a central control station (with manual override control). Actual control of the pumps is preferable from a central control station. Control may be exercised locally if sufficient personnel are available to maintain control and good communications with the central station.

- (b) Valve-controlled docks. It is preferred that valves and pumps be controlled remotely from a central control station. However, control of valves may be exercised locally if sufficient personnel are available to maintain control and good communication with the control station. All valves shall have a manual method of operation in addition to any remote method of operation.

3.2.10 Tankage and tank ballasting indicator system. System descriptions shall be provided showing the tankage and the tank level (or ballasting) indicator system. These descriptions shall include methods used to detect and prevent deflections of the dock structure that might stress the dock or the ship during docking. The system description shall include a description of the tank level indicating system including the accuracy of the system and the allowable differential head between tanks. A comparison shall then be made between accuracy and the allowable differential head so that a determination can be made as to the sensitivity of the drydock to errors in ballasting or deballasting the tanks. The critical differential head necessary for dock structural failure shall be clearly indicated. The method of detecting deflection by sighting along the dock structure shall be used as a guide to proper ballasting but is considered unsatisfactory if it is the only method used. The improper ballasting may only be evident when the dock structure or the ship-in-dock structure is already overstressed. Remote liquid level indicators for each ballast tank and for draft indication are desirable for all docks. They are particularly important on valve controlled docks to prevent losing suction by opening the valve on an empty tank and vapor binding the pump. If remote liquid level indicators are not provided, the system description shall include details of the method of operation in absence of such a feature.

3.2.11 Communication systems. System descriptions shall be provided showing the communication systems used during dock operations. The method of primary communication between personnel involved in the process of bringing the ship in and out of the dock as well as lining up the ship into the docking position shall be described. Similarly, the communications used during the pumping or flooding operations shall be described. Information shall be provided on alternate systems used in case of failure of the primary system. Such systems should include sound powered telephones, dial telephones, loud speakers, and alarm systems.

3.2.12 Mooring and anchoring. A description of the mooring and anchoring arrangements shall be provided. Data provided shall demonstrate that the mooring and anchoring equipment for the dock will hold the drydock in place, together with the largest ship the dock is capable of docking under the worst weather conditions the dock can possibly encounter. In addition, the description shall include an analysis of the effect on anchoring from failure of one anchor chain. Curves and tables required to determine the number and weight of anchor, the size, and the scope of the chain, under varying conditions, shall be provided. A 50 knot wind can be used as criteria for a drydock in normal protected waters. If the dock has successfully withstood weather conditions approaching the most extreme conditions to be anticipated, official records of these conditions may be substituted, at the discretion of the Government, for portions of or all the previous required data. Such acceptance is subject to the results of a material inspection of the installation for deterioration.

3.2.13 Docking of the drydock. Drawings and calculations demonstrating that the method used to drydock the dock does not unduly stress the drydock shall be available for review. Certification by a recognized designer of drydocks may be substituted for these data.

3.3 Graving docks.

3.3.1 General requirements.

- (a) Provide a description of each graving dock. The description would be based on the dock design as presently constructed, including modification to date. Provide data such as core borings and foundation data - type description of foundation, longitudinal sections with appropriate elevations, including additional information on the adequacy of the drydock pressure relief system, the effectiveness of the drainage features (blankets, filters, and underdrain) and irregularities which may indicate abnormal concentration of flow or subsurface erosion. Original historical data would only be provided when relevant to the present configuration.

- (b) Data on the stability of a particular ship during the drydocking process shall be furnished to the Navy, prior to the drydocking. Similar data shall be furnished prior to undocking the ship, if there has been a weight change while the ship was in dock. These data shall include, as a minimum, the displacement, KG, list and trim, the maximum stress at the aft end of the knuckle block and the estimated minimum GM during the time the dock is being pumped down.
- (c) System descriptions shall be provided for flooding and pumping systems, including the time required for flooding and pumping the dock. Redundancies within the system to provide for casualty control shall be noted. Descriptions shall include the number and arrangement of piping systems, pumps, including capacities, valves, motors, and normal and emergency electrical power sources.
- (d) A system description shall be provided for any method of superflooding or any other method of increasing the depth of water over the blocks above the normal water level that exists when the ship enters the dock.
- (e) Provide a history of the successful operation of each graving dock over the last five years.
- (f) Provide copies of Company Standard Operating Procedures for Docking and Undocking Naval ships and Company Standard Operating Procedures for Operating the Graving Docks.
- (g) Where disaster plans and firemain certification tests have already been submitted to the Navy under ship construction contracts, include copies for information only.
- (h) Within the next three years, have a professional engineer team employed by the activity conduct the material survey so that at the end of the period the Navy will have a complete independent material survey of each graving dock. Such survey shall be submitted to the Navy for each dock when completed.
- (i) Material survey by outside independent team after initial survey to be conducted at ten-year intervals.
- (j) Activity to conduct, with own personnel, a yearly visual survey of each facility and provide Navy with a copy.
- (k) Activity to have an affirmative obligation to notify Navy if any material change occurs to the condition of any facility.
- (l) The material survey shall include potential corrosion and cathodic protection.
- (m) Provide earthquake analysis in areas subject to seismic events. (See NAVFAC P-355 "Seismic Design for Buildings" April 1973 and NAVFAC P-355.1 "Seismic Evaluation of Supports for Existing Electrical - Mechanical Equipment and Utilities" (March 1975)).
- (n) Describe systems common to more than one dock.

3.4 Marine railways.

3.4.1 Stability of marine railways. Stability data for the cradle and the ship/cradle system under the conditions discussed below shall be provided as part of the five-year certification. Evidence that the facility was designed by a qualified designer for the certified capacity may be considered as a substitution for these data.

3.4.1.1 Stability during docking and hauling. During the initial stage of docking, while the ship is still afloat and the breast lines fastened to the cradle, the stability of the cradle may become critical since the wind and current forces acting on the ship drag the breast lines, thereby producing substantial overturning moments on the cradle. This condition is depicted in figure 4 for the endhaul type. In this condition, the resisting moment is not comparatively large, since the ship still does not bear on the blocks and only the submerged weight of the cradle must resist this overturning moment. If this weight is not sufficient, ballast may be required.

To ensure that the resisting moment is sufficient to counteract the overturning moment, the following relation must be satisfied for the endhaul railways:

$$1/2 W_c b_t \text{ greater than } (F_w + F_c) h_t$$

where W_c is the submerged weight of the cradle (including ballast, if any), b_t is the track width, F_w is the total wind force, F_c is the current force, and h_t is the height of breast lines above top of rails or tracks.

3.4.1.2 Stability in normal operating position. After the ship and cradle are hauled out of the water, the ship's weight is supported completely by the cradle and groundways. The dock in this position may be subjected to wind and earthquake forces and the stability analysis must account for the combined stability of ship and cradle. Earthquake forces must be considered in areas where such disturbances are likely to occur.

3.4.2 Stability data for a particular ship docking. See 3.3.1.

3.4.3 Special design data. Data submitted in accordance with 3.1.5 shall include:

- (a) Maximum allowable total lift capacity and lift capacity in tons per foot.
- (b) Designed keel block and hauling block arrangement and loading with maximum capacity load.

3.4.4 Hauling-out equipment. A system description shall be provided for the hauling-out equipment used for the railway, including in-haul chain loads and sizes, and stops at the end of the tracks. The system shall include safety features designed to prevent the cradle from traveling down the tracks once it has reached the final in-haul position.

3.4.5 Groundways. A drawing of the groundways shall be provided, including ground-way slope and length, mean low water and mean high water data. A typical cross section, showing track size and gage, and foundation details, including soil description, typical soil boring log, piling size and spacing shall also be provided.

3.4.6 Cradle. A drawing or written description of the cradle, with dimensions, materials of construction, and data on the main structural framing and bracing details shall be provided. A composite shipload distribution diagram shall also be provided for a typical ship of the certified docking capacity, showing resulting wheel or roller loads on groundways.

3.4.7 Sidehaul marine railway. The documentation shall be similar to that required for endhaul types, with variations as necessary to adequately indicate the facility design and characteristics.

3.5 Vertical lifts.

3.5.1 Stability data for a particular ship docking. See 3.3.1.

3.5.2 Special design data. Data submitted in accordance with 3.1.6 shall include:

- (a) Maximum allowable total lift capacity in tons per linear foot.
- (b) Designed block arrangement and loading with maximum capacity load.
- (c) Lift cable loadings associated with maximum capacity load.

3.5.3 Lifting equipment. A system description of the lifting equipment shall be provided. This description shall include safety features (for instance, gear ratios and brakes) incorporated into the design in event of a failure to the equipment, including the source of power.

3.5.4 Foundations. Describe the structural arrangement for supporting the lifting hoists (for example, a pile support pier or platform), indicating dimensions, materials of construction, framing and soil boring or soil description.

3.5.5 Platform. Describe the platform framing and blocking arrangement for supporting the ship when lifted by the hoisting equipment, including dimensions, materials of construction, framing and details.

4. MATERIAL CONDITION OF FACILITY

4.1 General requirements.

4.1.1 Material condition survey. A survey of the actual material condition of the facility shall be conducted as required by section 1 to determine any degradation from the designed capacity of the facility as presented in section 3. The survey shall pay particular attention to finding deficiencies which affect the strength or integrity of the facility or degrade operating systems to an extent to jeopardize the safety of the ship being docked. The survey of new constructed docks shall include non-destructive testing (NDT) of welds, using magnetic particle inspection (MP), ultrasonic testing (UT), or radiograph testing (RT). NDT of welds shall be in accordance with builders specifications. The results of this survey shall be summarized in a written report and submitted as part

of the facility certification. Part III of the SAMPLE FACILITY CERTIFICATION REPORT contained in the appendix shows the type of report that shall be submitted. The report shall be tailored to the particular facility, taking into consideration the type, size, and age. All reports shall contain statements similar to those in section 2 (summary of survey) of part III of the SAMPLE FACILITY CERTIFICATION, indicating whether the facility is considered safe or unsafe to dock ships of the certified capacity. In making this determination, items having a material rating of "Marginal" (see 4.1.5) shall be considered as a group to determine if collectively the items constitute an unsafe condition.

4.1.2 Survey instructions. The survey shall be based on levels of essentiality and progressive steps of detail based on initial findings; however, the survey should evaluate all of the features and systems required by section 3 of this standard to ensure ship or dock safety. Cleaning of surfaces and testing of systems will be necessary to conduct the survey. Gaging of materials for thickness, and additional testing will be required as dictated by the results of the initial inspections in order to determine the actual material condition of the facility. During the survey, a comparison shall be made of the data presented to meet the requirements of section 3 and the actual configuration of the facility as now being operated. Any significant differences shall be noted in the survey report.

4.1.3 Conducting the survey. The following sections provide additional guidance in conducting the survey of a particular type of facility. As noted in 4.1.1, survey of the facility is to be conducted to determine any degradation from the designed capacity. While the following sections point out particular areas that must be considered, they shall not be considered as indicating that these areas are the only ones to be inspected.

4.1.4 Definitions of material condition ratings. The following ratings for material conditions are defined in the SAMPLE FACILITY CERTIFICATION:

Satisfactory - Condition is satisfactory for the facility to safely drydock a ship of the certified docking capacity.

Unsatisfactory - Condition is unsatisfactory and makes the facility unsafe to drydock a ship of the certified docking capacity.

Marginal - Condition is marginal. This rating is used for an item which is unsatisfactory but, by itself, does not make the facility unsafe to drydock a ship of the certified docking capacity. A number of such items as a group can make the facility unsafe. This rating shall be used also for items which are barely satisfactory and will be unsatisfactory within a five-year interval unless corrected.

4.1.4.1 When determining the material condition rating, the following factors shall be considered:

- (a) Extent and degree of deterioration.
- (b) Whether deterioration is active or arrested.
- (c) Degree of progression of defect prior to next five-year inspection.

4.1.5 Marginal or unsatisfactory items. For each item rated as "Marginal" or "Unsatisfactory", the reason for the rating shall be included.

4.1.6 Marginal items. For each item rated as "Marginal", the activity shall include in the facility certification the corrective action that will be taken and the time schedule for the action.

4.1.7 Unsatisfactory items. If the survey reveals any unsatisfactory ratings, the facility cannot be certified for the applied for service until these conditions are corrected. At the option of the activity the application for certification may be revised for service at a lower rating without corrective action. Such application shall then be considered separately.

4.1.8 Qualification of survey team. Paragraph 1.9 states that the material survey team shall be made by a qualified independent survey team from firms such as Naval Architectural, Marine Engineering, American Bureau of Shipping, etc., (not employees of the activity). The qualifications of the firm and of the members of the survey team shall be stated in the Facility Certification. An individual team member making the survey of a floating drydock shall have experience in either the design of floating drydocks, the operation of such docks or in ship surveying (steel or wood as appropriate). The team shall be composed of members with experience in at least two of the previously mentioned areas of

qualification. An individual team member making the survey of a graving dock, marine rail-way, or vertical lift shall have experience in either the design of that type of facility, operation of the type of facility or surveying of that type, or similar type, of structure. The team shall be composed of members with experience in at least two of the previously mentioned areas of qualification. An individual with experience in soil mechanics shall be a member of a team surveying a graving dock. An individual team member for the underwater portion of the survey on a floating drydock shall have experience in at least two of the following: underwater salvage work, ship surveying, and underwater maintenance and repairs in materials appropriate to the drydock. A diver meeting the requirements of a recognized classification society for similar underwater inspection in lieu of drydocking survey shall be considered to be qualified.

4.2 Floating drydocks.

4.2.1 General. The survey shall be directed toward finding deficiencies which affect the strength or integrity of the dock to handle a ship of the certified capacity of the dock.

4.2.2 Underwater material survey. The certification shall include the results of an inspection of the underwater body of the drydock. The survey shall be performed at the time of the five-year certification. The underwater survey may be accomplished using either of the following or combination of the following methods necessary to ensure a thorough and accurate inspection:

- (a) Careening for partial examination of bottom plating.
- (b) Systematic audiogage or ultrasonic bottom plating measurement taken from the interior of the pontoon.
- (c) By means of qualified underwater divers using the latest underwater electronic videotape equipment, underwater photography, underwater television or other devices as outlined by recognized classification society. If a drydock has been docked within the last two years previous to the current certification interval, and a material survey has been conducted at that time on the underwater portion of the drydock, that portion of the material survey shall be waived until the time of the following certification interval.

4.2.3 Mooring and anchoring. There are two criteria for condemning and replacing anchor chains. The first method condemns any chain whose wire diameter is reduced to 90 percent of the nominal mean wire diameter as unsatisfactory. The second method condemns chain that has increased in length greater than the tolerance allowed for a six link-section, i.e., elongation by 3/4 inch for each inch of wire diameter. The following procedures shall be performed during drydocking of the dock, or once every five years, whichever comes first. The limiting dimensions are given below.

TABLE I. Limiting dimensions of anchor chain^{1/}.

Size of chain nominal wire diameter (inches)	90 percent of nominal wire diameter ^{2/} (inches)	Six-link dimensions ^{3/} (inches)
0- 3/4	0.675	20- 1/16
0- 7/8	0.768	23-13/32
1- 0	0.90	26- 3/4
1- 1/8	1.013	30- 3/32
1- 3/16	1.069	31-49/64
1- 1/4	1.125	33- 7/16
1- 3/8	1.238	36-25/32
1- 1/2	1.35	40- 1/8
1- 5/8	1.463	43-15/32
1- 3/4	1.575	46-13/16
1-13/16	1.631	48-31/64
1- 7/8	1.688	50- 5/32

See footnotes at end of table.

TABLE I. Limiting dimensions of anchor chain^{1/}. - Continued

Size of chain nominal wire diameter (inches)	90 percent of nominal wire diameter ^{2/} (inches)	Six-link dimensions ^{3/} (inches)
2- 0	1.80	53- 1/2
2- 1/16	1.856	55-11/64
2- 1/8	1.913	56-27/32
2- 1/4	2.025	60- 3/16
2- 5/16	2.081	61-55/64
2- 3/8	2.138	63-17/32
2- 7/16	2.194	65-13/64
2- 1/2	2.25	66- 7/8
2- 9/16	2.306	68-35/64
2- 5/8	2.363	70- 7/32
2- 3/4	2.475	73- 9/16
3- 0	2.70	80- 1/4
3- 1/4	2.925	86-15/16
3- 3/8	3.038	90- 9/32
3- 1/2	3.15	93- 5/8
4- 3/4	4.275	127- 1/16

^{1/} For dielock or high strength welded chain only.

^{2/} Use micrometer or snap gage to check this dimension. When the gage fits over the link, the link has been stretched beyond allowable limit. Measure the diameters at right angles and take one-half the sum of the two diameters as representing the wire diameters.

^{3/} Six-link measurements should be taken with a load applied to the chain equal to 10 percent of the proof load. Use bar gage to check the six-links dimension. When gage will not fit over six-links, the chain has been stretched beyond allowable limit. Measure the first six-links including the first on-board link which secures the chain to the dock. Measure each successive series of six-links, starting with the third on-board link for a chain length equal to twenty feet below the water line with the dock deballasted.

4.2.3.1 The first on-board link which secures the chain to the dock and each link leading through a bolster or a deck edge fitting shall be investigated for excessive local bending, wear in accordance with ^{2/} of table I, or stretch in accordance with ^{3/} of table I.

4.2.3.2 Anchor chains, other than those provided as part of the drydock onboard equipment, shall be checked as defined under ^{2/} and ^{3/} of table I, except that table I shall apply to the first twenty four inboard links only.

4.2.3.3 Any chain, twenty feet below the waterline to twenty feet above the waterline, that does not meet the requirements of table I will require the balance of underwater chain to be checked.

4.2.4 Blocking. Blocking shall be inspected as follows:

- Wooden blocks shall be inspected for deterioration resulting from excessive crushing, warping, cracking, checking, rotting, or damage from dogging. A check shall be made for loss of contact at edges resulting from checking and unequal shrinkage.
- Concrete cores of composite blocks shall be inspected for spalling, cracks, and chipped or damaged concrete. Wood of composite blocks, like wooden blocks, shall be inspected for deterioration. The condition of bolts holding timber caps and base blocks to concrete cores, as well as the lifting padeyes embedded in concrete, shall be noted.
- Except when consisting of composite blocks remaining in place because of their weight, all fixed blocking shall be secured in place.
- Securing and bolt connections, through the wood, shall be inspected on steel docks where blocks are bolted to clip angles or plates welded to the pontoon decks. When blocks are set on T-beam supports, the bolts and supports shall be inspected.

- (e) Securings, supports, nuts, and boltheads shall be sound. There may be considerable active corrosion under blocks which are fixed in place. The inspection of docking shall include lifting a number of blocks, selected at random, to determine the presence and extent of such corrosion.
- (f) On concrete docks, the condition of the metal fasteners securing blocks to the bearers shall be noted.
- (g) On wooden docks, attention shall be given to checking the state of preservation of links, staples, angle pieces, log screws, dogs, or other fasteners for securing the blocking to the keel tracks or other support members.
- (h) Hauling blocks, if used, shall be checked to see that the hauling mechanism ensures freedom and is adequately supported by the sub-structure. In the event that the blocking does not land on transverse strength members of the pontoon deck, an investigation shall be made to assure that provisions have been made for the use of adequate grillage to distribute loading to adjacent strength members.

4.2.5 Inspection of condition of hull structure of steel drydocks. Hull inspection of areas shall be conducted as necessary to determine the overall condition of the hull and the need for repairs to ensure strength and watertight integrity of the dock.

4.2.6 Major categories of steel hull deficiencies. The major categories of steel hull deficiencies are:

- (a) Deterioration, either general or local.
- (b) Hull defects, such as deformation, fractures, cracking, or weakening or failure of fastenings.
- (c) Hull damage caused by operation of the dock.

4.2.7 Deterioration. Deterioration is the most common defect. In cases such as deep pitting, it can be easily detected. In other cases, such as general erosion or incipient joint or member failure, it is impossible to ascertain the deterioration without gaging or careful examination. The inspection shall include an examination of plating, framing, and other structural members to determine the nature and extent of corrosion and pitting.

4.2.8 Gaging. The only practical way of determining the degree of deterioration is to measure the thickness of the member and compare it with the original thickness. Thickness measurements can be made by drilling and measuring, by ultrasonic measurement, and, in a limited area of application, by measurement with caliper-type instruments. All of these methods are called "gaging" in this publication. If ultrasonic measurements are to be taken, the activity shall submit to the Navy the quality assurance procedures to be used during the measurement process. Gaging is required only when there is a reasonable basis for doubt. If initial inspections indicate a reasonable basis for doubt, questionable areas shall be gaged.

4.2.9 Gaging for localized deterioration. Gaging shall be performed to determine the actual minimum plate thickness where there is reason to question the thickness of the member and a quantitative thickness value is needed. Questionable conditions include deep pitting, thin edges of structural shapes, fractures or other evidence of deterioration or over-stressing found during initial inspections.

4.2.10 Gaging of large areas. Gaging of large areas (for instance, a whole pontoon deck or a safety deck) shall be performed if gaging for localized deterioration (see 4.2.9) indicated the need for large scale gaging to determine the strength of the dock.

4.2.11 Corrosion criteria. Strength members or portions thereof which have suffered a reduction from their original dimensions of 25 percent or greater shall be considered unsatisfactory. The drydock shall therefore be considered unsafe for docking ships of the designed rated capacity. The Navy may accept a further reduction of strength members, if the activity can demonstrate by detailed calculations that the strength of the dock, with its reduced scantlings, has sufficient strength to dock ships of the rated maximum capacity. The yield strength of the material or maximum buckling stress, whichever is less, shall be used for allowable stress.

4.2.12 Hull defects and damage. The inspection shall include an examination for defects or damage, such as bent or buckled plates, frames, and other structural members. An examination shall be made for cracks in plating, framing, and other structural members. An examination shall also be made for cracks in welded joints and loose rivets.

4.2.13 Safety deck. Special attention shall be given to safety deck areas more susceptible to corrosion; for example, where machinery and equipment are located. Deck plating areas where water or moisture accumulates shall also be inspected.

4.2.14 Pontoon deck. Pontoon decks shall be checked for corrosion of deck plating. Particular attention shall be given to areas under the keel blocking and under bearing timbers of steel tracks for hauling blocks. The condition of the steel keel block supports, metal clips, and fasteners for bearing timbers, including the condition of paint in this area, shall also be checked. The paint coatings, plating, or bounding bars shall also be inspected during the inspection of the pontoon deck. Water and debris accumulating in this area because of lack of drainage or cleaning are major factors in serious corrosion.

4.2.15 Ballast compartments. In bituminous or other preservative-coated compartments, the general conditions of preservative coatings shall be noted. A check shall be made for bare metal surfaces where coatings have flaked off, particularly on vertical and overhead surfaces. The extent of active corrosion shall be noted in these areas, as well as blisters in a preservation coating. Blisters should be scraped to ascertain the metal condition underneath. When any corrosion of webs and flanges of strength members is present, appropriate measurements shall be taken if the condition appears serious.

4.2.15.1 In flotation-treated compartments, an inspection shall be made to ascertain whether or not the compound, in which films float within a compartment, is reaching all overhead surfaces between members.

4.2.16 Bulkheads. Special attention shall be given to excessive corrosion of bulkheads. The lower boundaries and those in ways of bilge wells shall be examined.

4.2.17 Other items. A check shall be made of the condition of holding bolts, between the sidewalls and the pontoon, and the preservation condition of the hinges and hinge pins. The condition of the holding bolts at the connection between an end and center sections of three-piece docks shall also be checked.

- (a) Locking devices between sections (sectional locking devices) shall be checked for strength, adequacy, and freedom of movement.
- (b) Hauling equipment, such as winches and capstans, shall be checked for adequate structural condition for operations. Hold-down bolts, foundations and supporting substructures, mooring bitts, chocks, cleats, and padeyes shall be checked for structural adequacy.
- (c) Wing wall cranes (if any) shall be checked for adequate structural support and operational freedom of movement. A check shall also be made for structural adequacy of the positive securing devices for securing cranes during docking and undocking operations and adverse weather conditions.

4.2.18 Inspection of condition of hull structure of wooden drydocks. An examination shall be conducted of major parts of the hull, decks, bulkheads, and frames. Exterior and interior surfaces shall be inspected as necessary for rot and marine borers.

4.2.19 Major categories of wooden hull deficiencies. The major categories of wooden hull deficiencies include:

- (a) Deterioration, either general or local, of either the timbers of the dock or the fastenings.
- (b) Hull defects, such as deformation, failure of fastenings, or fracture of timbers.
- (c) Hull damage caused by operation of the dock.

4.2.20 Deterioration. The useful life of a wood structure is enhanced by use of high quality, durable wood species and preservative treatment in construction. The material condition in areas where there is an absence of any of these factors shall be specifically addressed in the survey. Deterioration of particular importance is the effects of decay, marine borers, wear, and nailsickness (electro-chemical attack); these should also be specifically addressed in the survey. Picks, probes or wood drills shall be used to determine the soundness of wooden members.

4.2.21 Fastenings. Particular attention shall be given in the survey to the condition of fastenings since these are often the weakest link in a wooden structure.

4.2.22 Watertightness. To ascertain the watertightness of a dock, a check shall be made of the planking seams and the condition of the caulking, particularly near the top of sidewall areas that do not become submerged; these tend to dry out and allow the seams to open.

4.2.23 Decay. Hull structures shall be inspected for decay which may result from fresh water leakage or inadequate ventilation. In addition, rainwater leakage through decks is often responsible for decay.

4.2.24 Blocking and hauling equipment. See 4.2.4 and 4.2.17 for applicable information.

4.2.25 Inspection of condition of ballasting and deballasting systems for floating drydock. A visual inspection and a test shall be made of all ballasting and deballasting systems. This includes pumps, piping, valves, remote operating gear, pump motors, and power supply. Based on initial inspection and test, equipment shall be dismantled as required to determine the material condition. Similarly, special tests of electrical equipment and gaging of piping shall be conducted when dictated by initial inspection and tests. These actions will be required when there is a reasonable basis for concern over the material condition.

4.2.26 Ballasting times. The survey shall include the actual ballasting and deballasting times for the drydock. Any major differences between these times and the designed times shall be examined.

4.2.27 Inspection of condition of ballasting indicators. The indicators shall be checked for proper operation. Particular attention shall be given to their accuracy and reliability. The accuracy of the indicating system shall be measured and compared to the accuracy of the system as designed and as described by the requirements of 3.2.10. If the measured tank-level is not within the allowable tolerance of the system as designed, the system shall be repaired and brought into the originally designed accuracy prior to certification.

4.3 Graving docks.

4.3.1 Material surveys. The material survey of a graving dock shall give special attention to high risk areas. To determine these areas, an analysis shall be made of the factors most likely to cause damage to the ship while being docked, or while in dock. Important aspects to be considered include (a) soil conditions and type of fill used, (b) type of construction used, and (c) likelihood of seismic activity. In most cases, such an analysis will show that damage due to uncontrolled flooding is far more likely to occur than damage resulting from a major structural collapse of the dock. The possibility of such flooding shall be investigated. Operating logs shall be examined to determine if there has been an increase in pumping requirements for removal of leakage water. Any increase shall be investigated and the cause determined and evaluated. Steel structural members, where used, shall be examined for corrosion.

- (a) Particular attention shall be given to the possibility of settlement of the drydock or adjacent land. When settlement is known, or exists, its extent shall be determined.
- (b) Soundings outboard of entrances shall be taken to determine whether there are any large holes or raised areas that might indicate movement of earth from, or development of, waterways under the drydock floor.
- (c) In addition, evidence of undue stress in caisson structure, such as spring plates, leaky rivets, or bent frames, caused by unequal drydock settlement, shall be noted.

4.3.2 Inspection of sidewalls, floors, and tunnels. The walls of graving drydocks, subject to leakage, shall be checked for cracks. It shall be determined from records whether cracks are extending or opening, and whether or not leakage is increasing. The extent of the area through which water is being admitted, as well as amount of water entering the area, shall also be noted.

- (a) Whether or not the leaking water is carrying any sediment, as well as the amount of sediment, shall be determined.
- (b) Cracks in the dock floor shall be inspected for leakage. These cracks may indicate a more serious condition than that indicated in the sidewalls. The extent of the area through which water is being admitted and the amount of water entering, as well as the presence of sediment, shall also be determined.
- (c) Particular attention shall be given to the inspection of drainage and filling tunnels for leakage of water through expansion joints or cracks.

4.3.3 Blocking. See 4.2.4 for applicable information.

4.3.4 Extent of inspection. The sample facility certification report in the appendix, part III, provides inspection checkoff lists for a graving drydock, caisson, and pumphouse (or pumphouse). These lists, presented as a guide, shall be added to, or revised to suit the particular facility.

4.4 Marine railways.

4.4.1 General guidance. The material contained under 4.2.5 and 4.2.18 shall be followed, as appropriate, when making the survey of steel and wooden members of marine railways. Also, see the inspection checkoff lists for a marine railway in the Sample Facility Certification Report, appendix, part III, for the overall extent of inspection desired.

4.4.2 Trial. In addition to the survey of the railway structure and machinery in a static condition, a trial shall be conducted to determine the operating condition of the installation. During this trial particular attention shall be paid to the operation of the in-hauling equipment and to smoothness of operation of the hauling equipment.

4.4.3 Blocking. See 4.2.4 for applicable information.

4.4.4 Inspection of underwater groundways and tracks. As part of the survey, in addition to above water components, the underwater groundways, tracks, and other underwater structures shall be inspected, and the material condition determined.

4.4.5 Care and operation of marine railway. The maintenance procedures for care of the marine railway shall be evaluated to determine if they are satisfactory to keep the railway in operating condition for the five-year interval between certification.

4.5 Vertical lifts.

4.5.1 Trial. An operating trial shall be conducted to demonstrate the operation of the lift. Particular attention shall be given to smoothness of operation during the process.

4.5.2 General guidance. The material contained under 4.2.5 and 4.2.18 shall be followed, as appropriate, when making the survey of steel and wooden members of vertical lifts.

4.5.3 Blocking. See 4.2.4 for applicable information.

4.5.4 Care and operation of vertical lifts. The maintenance procedures for care of the vertical lift shall be evaluated to determine if they are satisfactory to keep the vertical lift in safe operating condition for the five-year interval between certifications.

4.5.5 Extent of inspection. Vertical lifts take many different forms. Therefore, no inspection checkoff lists are attached. Forms should be prepared by the inspection team to suit the particular facility using checkoff lists shown in part III of the appendix for other drydocking facilities as guidance.

5. OPERATING PROCEDURES AND PERSONNEL QUALIFICATION PROCEDURES

5.1 Operating procedures.

5.1.1 General. Complete operating instructions and procedures for the docking facility shall be prepared. These operating instructions or appropriate portions thereof shall be available at the appropriate stations and available to the dockmaster or docking officer. Typical of the required instructions and procedures are those covered in the paragraphs which follow.

5.1.2 Operating instructions for docking and undocking. Detailed instructions for operating the drydock shall be prepared and available in writing to the dockmaster or docking officer. They shall include a plan for operation, assigning responsibilities for each phase of the operation. For floating drydocks these instructions shall include proper ballast/deballast procedures with or without a ship in the dock. Casualty control procedures shall be included and cover all conceivable casualties, equipment failures, and power loss situations at any time during the operation cycle of the docking facility. Methods of communication to the appropriate personnel shall be included in these procedures.

5.1.3 Emergency instructions. Emergency operating procedures covering failure/casualty conditions shall be posted at all operating stations.

5.1.4 Operational limitations. The following information shall be posted:

- (a) Structural limitations
- (b) Mooring equipment limitations
- (c) Material handling equipment limitations, and
- (d) Stability limitations

5.2 Personnel qualification procedures.

5.2.1 Qualification of dockmaster or docking officer. The dockmaster or docking officer in charge of docking/undocking evolutions shall be professionally qualified, through training and experience, to conduct these evolutions in a safe, reliable manner. The dockmaster certification (see sample in appendix) provides the means for making the contractor's dockmasters qualification a matter of record and subject to the contractor's top management review. Whenever a U.S. Navy ship is drydocked, the certification shall be executed whether the contractor is performing the work under a master ship repair contract or some other type of Navy contract. Navy docking officers shall be certified in accordance with applicable Navy directives.

5.3 Manning procedures.

5.3.1 General. Complete manning procedures for the docking facility shall be prepared. The manning procedures shall be available to the dockmaster or docking officer. The manning procedures shall describe the personnel and qualifications of each required for each evolution, their station and duties. The manning procedures shall also include the personnel required for casualty control.

6. PROTECTION WHILE SHIP IN DOCK

6.1 Applicability. This chapter concerns itself with the activities operation of the facility after the initial docking operation has been completed and the ship is sitting in the facility. It is limited to those aspects of the operation which might cause damage to the ship in dock due to a material failure of the facility.

6.2 Security patrol and fire watch. The activity shall provide adequate security and fire watch patrols. The method of manning these patrols, the frequency of such patrols and the written instructions for these patrols, including their responsibilities, shall be furnished as part of the Facility Certification. A list of equipments and systems available for immediate use by these personnel shall be noted.

6.3 Systems for prevention of flooding. System descriptions shall be provided, showing the stand-by systems available for removing water that may accumulate in the tanks, compartments, pump houses, dock basin, or other places in the facility.

6.4 Disaster planning. Disaster plans shall be prepared and furnished to the Navy. The plans shall cover such situations as shore power blackout, flood, storms, fire, hurricanes, and earthquakes.

7. SAMPLE FACILITY CERTIFICATION REPORT

7.1 Discussion. Paragraph 1.8 lists data that the activity shall submit as part of the facility certification. Paragraph 4.1.1 states that the results of the material condition survey shall be summarized in a written report and submitted as part of the facility certification. The "Facility Certification Report" given in the appendix is a sample report showing the type of report to be submitted. The type of drydocking facility and construction details shall be considered when making a particular report to be submitted. The Appendix also includes a sample acceptance letter that the contractor will receive for certification, and a sample certification for small ships.

Preparing activity:
Navy - SH

(Project 1950-N002)

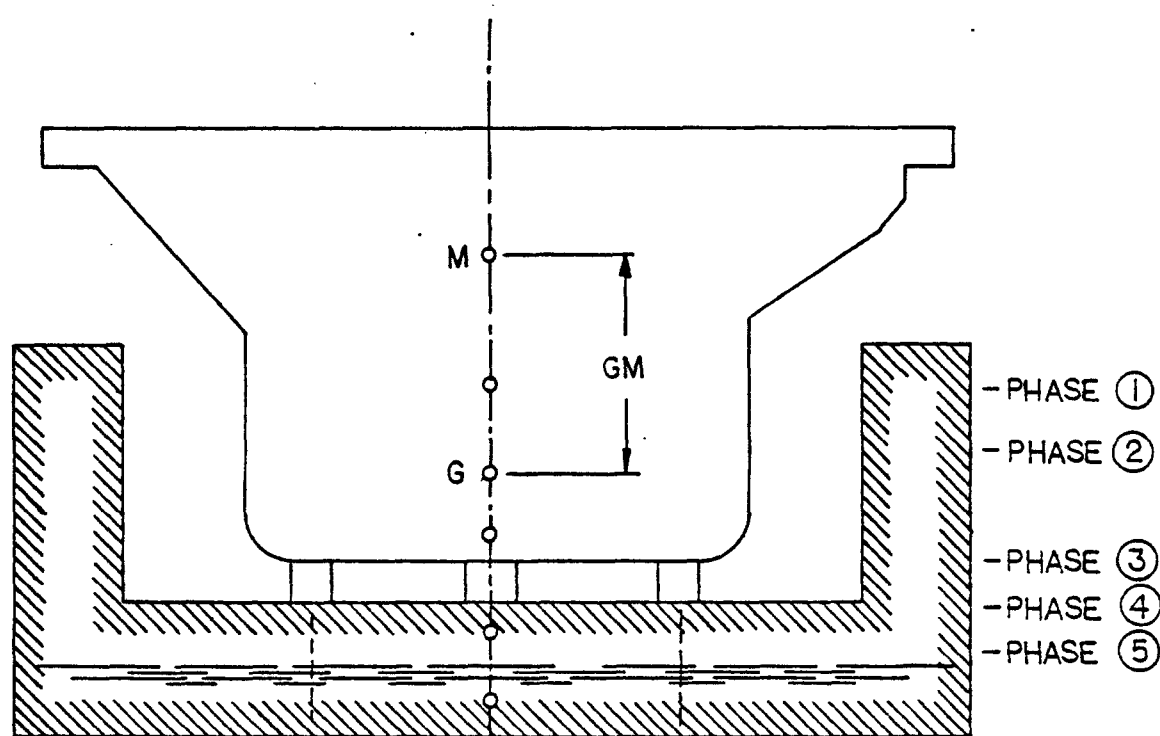


FIGURE 1. Floating drydock with ship at various phases of stability.

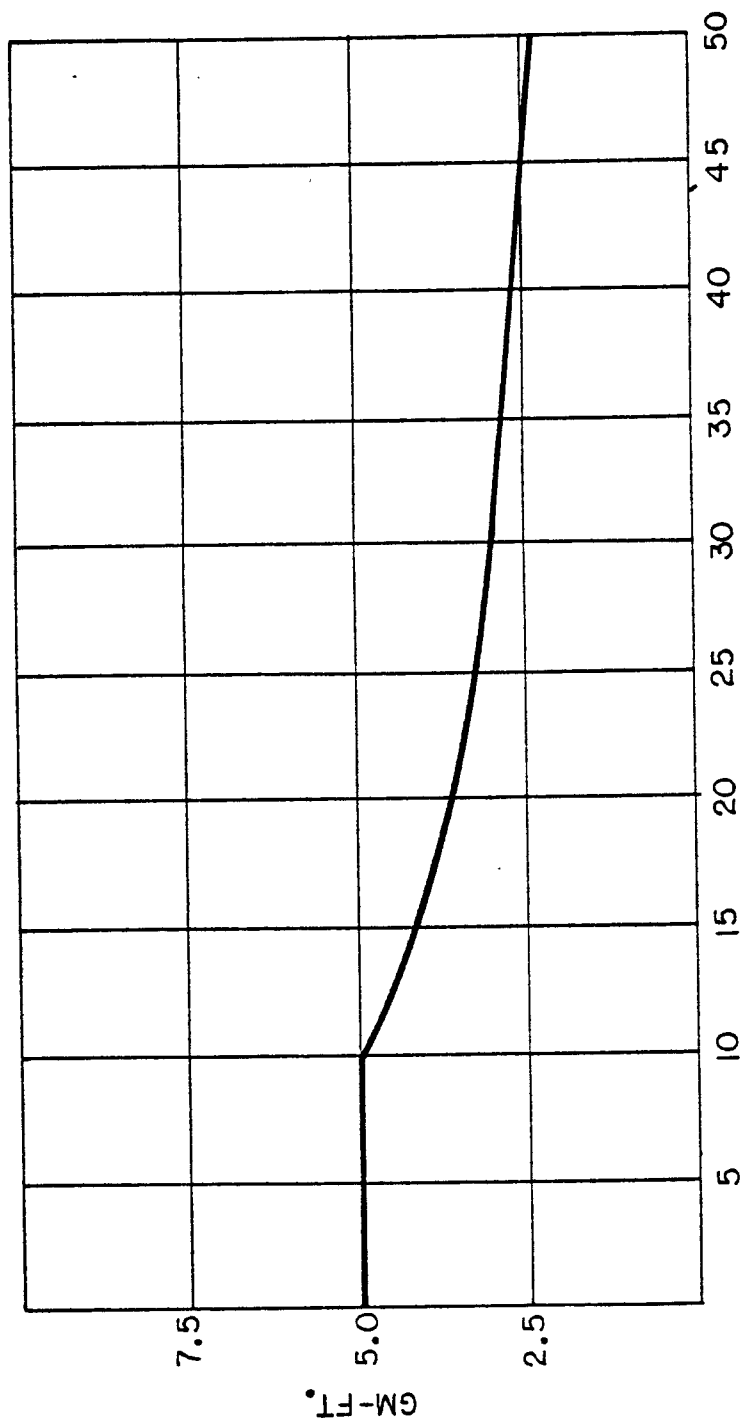
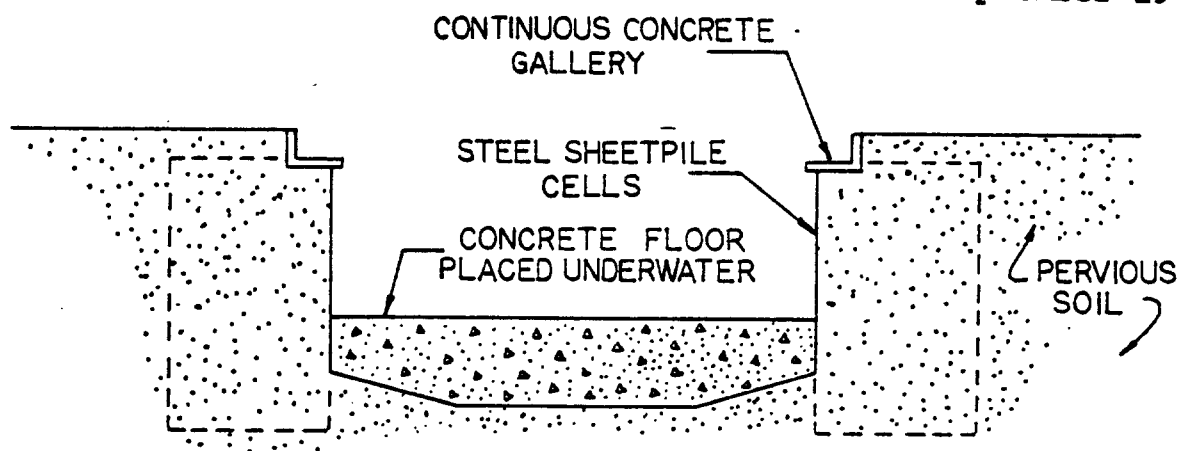
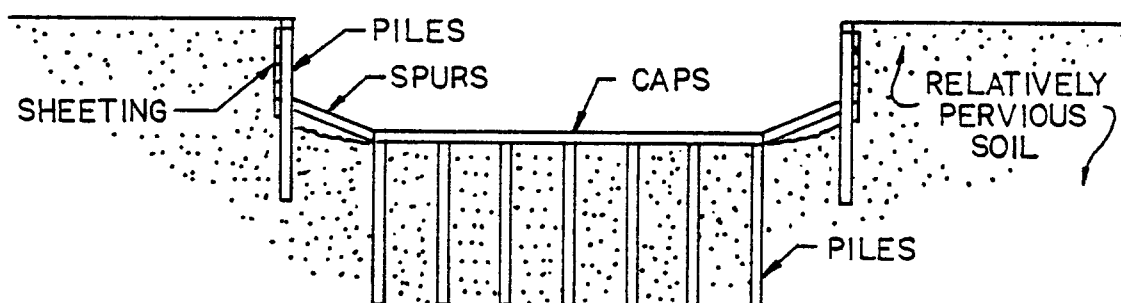


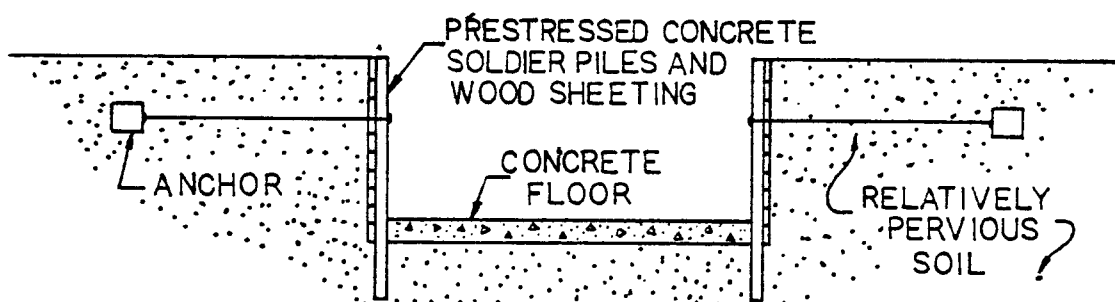
FIGURE 2. Rated lifting capacities of drydocks (1000 tons).



(a) SEMIPERMANENT SHIPBUILDING DRYDOCK



(b) TEMPORARY, ALL TIMBER DRYDOCK, CONSTRUCTED
IN OPEN CUT FOR BUILDING FLOATING STRUCTURES



(c) TEMPORARY DRYDOCK CONSTRUCTED IN OPEN CUT
FOR BUILDING TUNNEL SECTIONS

FIGURE 3. Miscellaneous types of drydocks.

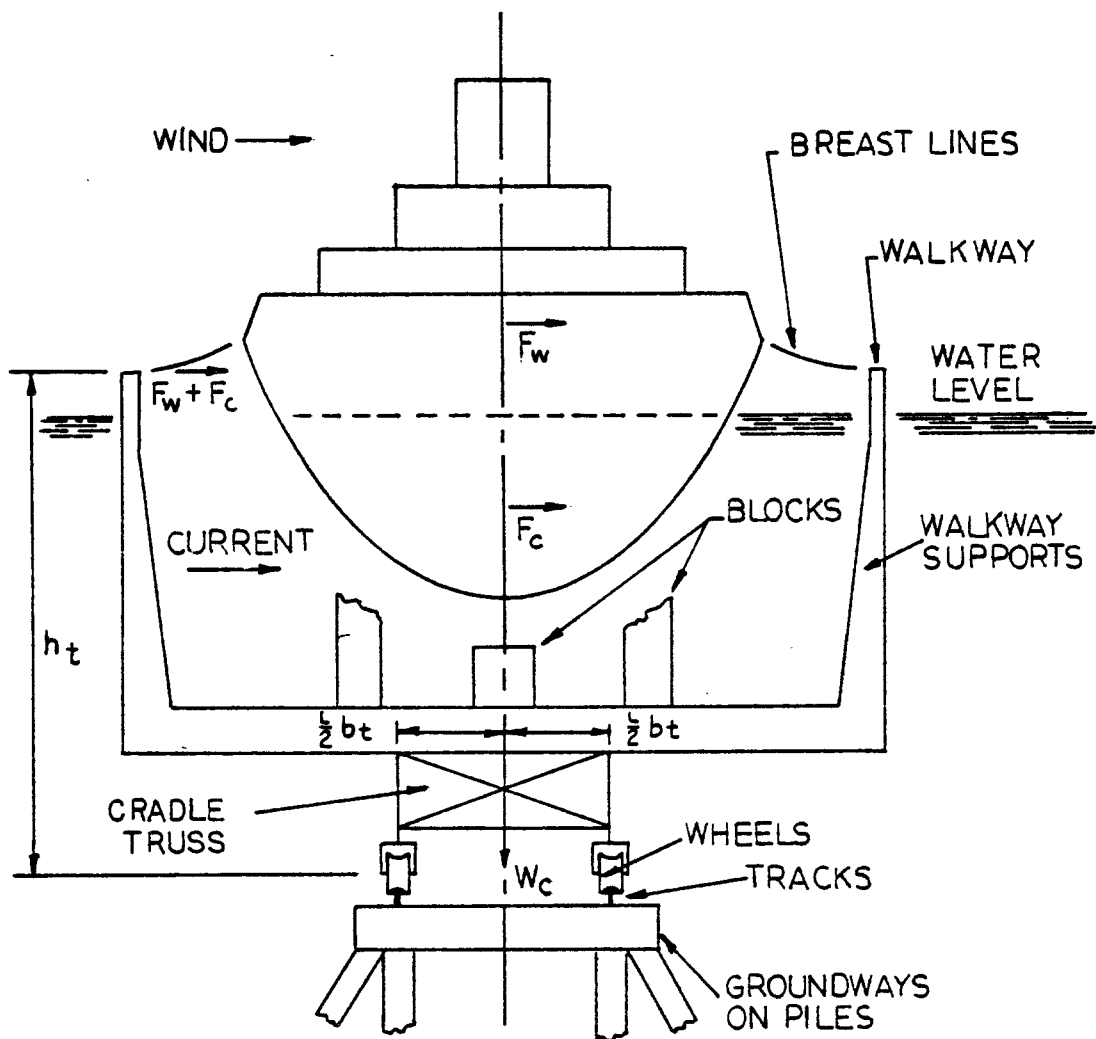


FIGURE 4. Forces on cradle during docking operation.

APPENDIX

SAMPLE FACILITY CERTIFICATION REPORT

10. SCOPE

10.1 This appendix contains a sample Facility Certification Report showing the type of report to be submitted to summarize the certification requirements contained in the basic specification, a sample Government acceptance letter, a sample certification report for small ships, and a sample certification for dockmaster.

20. REFERENCED DOCUMENTS

20.1 This section is not applicable.

30. SAMPLE REPORT

30.1 The following pages consist of a sample report.

40. SAMPLE LETTER OF ACCEPTANCE

50. SAMPLE CERTIFICATION FOR SMALL SHIPS

60. SAMPLE CERTIFICATION FOR DOCKMASTER

(COVER SHEET)

FACILITY CERTIFICATION
REPORT

(COMPANY)
(or Navy Activity as applicable)

(ADDRESS)

(TYPE OF FACILITY AND IDENTIFYING NO.)

(Example: Floating Drydock #3)

(Month and Year)

Signature of Company
Official and title
(or Navy official as
applicable)

Date _____

PART I - SUMMARY

1. Length of the Facility _____ Breadth _____
Maximum Depth over Keel Blocks _____
*Certified Docking Capacity _____
Designed by _____
Built by _____ Year completed _____
Designation of the facility _____

Example DD #3

2. A brief summary of recent overhaul work performed on the facility including dates follows:
3. A brief summary of modifications or alterations made since building of facility which modify capacity or dimensions of facility follows:
4. Drawings or sketches are attached showing:
 - (a) Standard blocking arrangement with maximum loading on blocking under rated lifting capacity load.
 - (b) Cross-sections showing side and keel clearances when drydocking maximum size ships.

*If not the same as maximum designed capacity, indicate reason for difference.

History of ships drydocked in facility follows including:

- a) Estimated weight, name of ship and date of docking of the heaviest ship docked in facility
- b) Estimated weight, name of ship and date of docking of the heaviest ship docked in the last three years
- c) Other data of ships drydocked that demonstrate capacity of facility
- d) Ships damaged during drydocking at facility requiring repairs in excess of \$25,000

Summary of facility certification.

- a) The maximum docking capacity of this facility based on this certification is _____ (long tons).
- b) Design data provided in Part II of this certification substantiates (or does not) this value.
- c) The material survey of the facility provided in Part III of this certification confirms (or does not) that the facility can safely dock a ship of the above weight.
- d) (other significant facts)

- The following information is provided to show that the firm which conducted the material survey and the individuals making the survey are qualified to make such a survey and meet the requirements described in section 4 of this standard.

PART II - DESIGN DATA FOR FACILITY

This part of the certification shall provide the data
required by section 3 of this standard.

PART III - MATERIAL CONDITION OF FACILITY

1. Survey of the material condition of the facility made by _____

_____ of _____
Firm (or Navy Activity) Address

Date of Survey _____

Survey based on a certified docking capacity of _____

2. Summary of Survey

The following conditions are considered to render the facility unsafe at this time for docking ships at the certified docking capacity (if none, state so):

The following conditions are considered marginal and may render the facility unsafe for docking ships of the certified docking capacity within five years (if none, state so):

(For floating drydock only)

A submergence test was performed. The drydock was submerged to a depth of _____ feet over the keel blocks and was allowed to stand at this depth for 45 minutes, during which period no leakage was noted. (If leakage noted, state amount, location and corrective action required).

The total time to flood or pump the drydock was _____
and _____ minutes respectively.

PART III (cont'd)

The following additional operational tests were conducted on components and systems:

The following preparatory work was accomplished in order to conduct the survey (include paint scaling, tank cleaning, etc.):

The following items were disassembled in order to conduct the survey:

The following data was obtained by gaging (attach data if extensive):

The following components or systems were under repair at the time of the survey. (Indicate when system will be returned to service and the standard used to evaluate condition of system):

PART III (cont'd)

3. Inspection checkoff sheets

The attached sheets summarize the results of the survey. In marking the inspection checkoff sheets, the indication under "Condition" is based on the following:

S = Condition is satisfactory for the facility to safely drydock a ship of the certified docking capacity.

U = Condition is unsatisfactory and makes the facility unsafe to drydock a ship of the certified docking capacity.

M = Condition is marginal. This rating is used for an item which is unsatisfactory but by itself does not make the facility unsafe to drydock a ship of the certified capacity. A number of such items can as a group make the dock unsafe. The rating is used also for items which are barely satisfactory within a five year interval unless corrected.

Remarks are provided to explain all U & M markings.

Inspection checkoff lists follow for:

- (1) Floating Drydock Structures (Steel)
- (2) Floating Drydock Structures (Wooden)
- (3) Floating Drydock Structures (Concrete)
- (4) Floating Drydock (Mechanical/Electrical)
- (5) Graving Drydock
- (6) Caisson
- (7) Pumphouse
- (8) Marine Railway

Sheet No. ____ of ____

DRY DOCK OWNED OR LEASED BY _____

DATE _____

DRY DOCK SIZE AND DESIGNATION _____

FLOATING DRY DOCK STRUCTURES (STEEL)

INSPECTION CHECKOFF LIST

ITEM INSPECTION	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
BASIC STRUCTURE				
Pontoon Transv Trusses or Frames				
Pontoon Inter Transv Frames				
Wing Wall Transv Trusses or Frames				
Pontoon Col's on CL				
*Bottom Plating				
Pontoon & Girder				
Bottom & Girder				
Bottom Longitudinals				
Pontoon Deck Long Members				
**Plating WT BHD No _____				
**Framing WT BHD No _____				
Plating Swash BHD				
Framing Swash BHD				
Pontoon Pass'way Bottom Plating				
Pontoon Pass'way Bottom Framing				
Buoyancy Chamber Plating				
Buoyancy Chamber Framing				
Trim Tank Plating				
Trim Tank Framing				
Crane Column				
Hull Openings Underwater				

S=Satisfactory U=Unsatisfactory M=Marginal

- * Note under remarks last drydocking date
- ** For each bulkhead

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (1 of 6)

Sheet No. ___ of ___

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
TOP SIDES				
Shell Plating Above WL				
Shell Plating Below WL				
WING WALLS				
Plating				
Longitudinals				
Reinforcement for Attachments				
Fastening of Attachments				
Hawsepipe and Reinforcement				
Fender Supports				
Stairway & Platform Connections				
ENDS				
Shell Plating Above WL				
Shell Plating Below WL				
Pontoon Framing				
Gudgeon and Pintle Dock				
Connection				
Wing Wall Framing				
Reinforcement for Attachments				
Fastening of Attachments				
Shear Connections				
Aligning Connections				
Rubbing Plating & Connections				

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (2 of 6)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Crane Rail and Supports				
Crane Rail Bumper				
Covering and/or Painting				
SAFETY DECK				
Plating				
Reinforcement for Attachments				
Fastening of Attachments				
Longitudinals				
Covering and/or Painting				
PONTOON DECK				
Plating				
Framing				
Reinforcement for Attachments				
Fastening of Attachments				
Longitudinals				
Coating or Painting				
Machinery Hatch Cover				
MACHINERY DECK				
Plating				
Reinforcement for Attachments				
Fastening of Attachments				
Longitudinals				
Coating or Painting				

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (3 of 6)

Sheet No. of

[illegible]

S=Satisfactory

U=Unsatisfactory

M=Marginal

1/Note under remarks last drydocking date

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (4 of 6)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
FRAMING CONNECTIONS				
Welds, Rivets, Bolts				
PLATE-TO-FRAMING CONN.				
Welds, Rivets, Bolts				
PLATE-TO-PLATE CONN.				
Welds, Rivets, Bolts				
OUTRIGGER				
Planking				
Framing				
Connections				
Connection to Dock				
CONNECTIONS BETWEEN				
SECTIONS				
Stern Gate				
FUEL OIL TANKS				
Plating				
Framing and Connections				
TRIM TANKS				
Plating				
Framing and Connections				
Preservation Coating				

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (5 of 6)

Sheet No. _____ of _____

[illegible]

Signature of Inspector

Firm

Steel Hull Floating Dry Dock Inspection Checkoff List (6 of 6)

DRY DOCK OWNED OR LEASED BY _____

SHEET NO. ____ of ____

DRY DOCK SIZE AND DESIGNATION _____

FLOATING DRY DOCK STRUCTURES (WOODEN)

INSPECTION CHECKOFF LIST

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
BASIC STRUCTURE				
PONTOON				
Deck Beams				
Intermediate Uprights				
Center Blocks Below Deck				
Bottom Chocks for Trusses				
Diagonal Braces				
Laminated Top Chord				
Long Wt Bulkheads				
Long Swash Bulkheads				
Transv Wt Bulkheads				
Bottom Backlogs				
Bottom Sheathing				
Bottom Planking				
Center Long. Above Deck				
Bottom Long. Keelsons				
Laminated Bottom Chords				
Fishplates				
Tie Rods				
Marine Growth				
Caulking (Underwater)				
Underwater Preservative Coat				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Wooden Hull Floating Dry Dock Inspection Checkoff List (1 of 5)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Sides				
Sheathing				
Planking				
Uprights				
Longitudinals at Bottom				
Blocking for WT Bulkheads				
Basic Structure				
Bulkheads				
Bulkhead Blocking				
Fishplates				
Calking				
Tar Coating				
Sheathing Felt				
Preservation Coating				
Marine Growth				
Stairs				
Shoring Platforms				
Davits				
Sleeves Above WL				
Sleeve Attachments				
Mooring Spuds				
Mooring Spud Attachment				
Attachment Fastenings				
Split Rings				
Bolts				
Boat Spikes				
Underwater Preservative Coat				

Signature of Inspector

Firm

Wooden Hull Floating Dry Dock Inspection Checkoff List (2 of 5)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Hull Openings Below WL				
Ends				
Sheathing				
Planking				
Uprights				
Blocking				
Calking				
Tar Coating				
Sheathing Felt				
Preservation Coating				
Marine Growth				
Attachment Fastenings				
Fishplates				
Split Rings				
Basic Structure				
Bolts				
Boat Spikes				
Underwater Preservative Coating				
Calking				
Wing Walls				
Planking				
Uprights				
Diag. Cross Bracing Bet. Frames				
Diag. Cross Bracing at Frames				
Transv Beams				
Top Longitudinals				
Transv Bulkheads				

Signature of Inspector

Firm

Wooden Hull Floating Dry Dock Inspection Checkoff List (3 of 5)

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Tie Rods				
Ladders				
Calking				
Tar Coating				
Sheathing Felt				
Preservation Coating				
Attachment Reinforcing				
Attachment Fastenings				
Split Rings				
Bolts				
Wood Borers (Ballast Compt)				
Top Deck				
Planking				
Painting and/or Covering				
Calking				
Preservation Coating				
Bolts				
Boat Spikes				
Manholes				
Hatchways				
Derrick Attachment				
Storage Tanks				
Basic Structure				
Storage Tank Supports				
Attachment Fastenings				
Attachment Reinforcing				
Hoist Attachment				

Signature of Inspector

Firm

Wooden Hull Floating Dry Dock Inspection Checkoff List (4 of 5)

Sheet No. _____ of _____

[illegible]

Signature of Inspector

Firm

Wooden Hull Floating Dry Dock Inspection Checkoff List (5 of 5)

DRY DOCK OWNED OR LEASED BY _____

Sheet No. ____ of ____

DRY DOCK SIZE AND DESIGNATION _____

DATE _____

FLOATING DRY DOCK STRUCTURES (CONCRETE)

Inspection Checkoff List

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Basic Structure				
Pontoon Transv Frames				
Pontoon Slab Above WL				
Pontoon Slab Below WL				
WW Transv Frames (UP)				
WW Transv Frames (LOW)				
WW Side Slabs				
WW End Slabs				
Transv Wt BHD Beams				
Transv Wt BHD Slabs				
Long. St BHD Slabs				
Long. NWT BHD Slabs				
Storage Tank Beams				
Storage Tank Slabs				
Access Trunk Frames				
Access Trunk Slabs				
Compartment Frames				
Compartment Slabs				
Top Deck A				
Slab				
Attachment Fastenings				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Concrete Hull Floating Dry Dock Inspection Checkoff List (1 of 3)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Covering and/or Painting				
B Deck				
Slab				
Attachment Fastenings				
Covering and/or Painting				
C Deck (Pontoon)				
Slab				
Propeller Pit Slab				
Attachment Fastenings				
Hatch Frame Attachments				
Bent Rubbing Plate				
Sides				
Ladder Fastening				
Fastening of Attachments				
Fill. and Disch. Sleeves				
SW Sleeves				
Hawsepipe Fastening				
Ant Mast Fastening				
Fenders				
Misc Wt Sleeves				
Hull Below WL				
Hull Above WL				
Wing Walls				

Signature of Inspector

Firm

Concrete Hull Floating Dry Dock Inspection Checkoff List (2 of 3)

[illegible]

Firm

42

DRY DOCK OWNED OR LEASED BY _____

Sheet No. ____ of ____

DRY DOCK SIZE AND NO. _____

Date _____

FLOATING DRY DOCK (MECHANICAL/ELECTRICAL)

INSPECTION CHECKOFF LIST

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Dewatering/Flooding				
Main Dewatering Pumps				
Drainage Pumps				
Motors for Dewatering Pumps				
Piping				
Valves & Valve Operators				
Water Level and Draft				
Indicator System				
Power				
Engine Gen. Sets				
Air Comp (if Air Operated Dock)				
Shore Pwr for Main Pwr Source				
Elect Distr Sys for Main Power				
Air Distr Sys for Air Oper Dock				
Communication System				
Sound Powered				
Dial Telephone				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Floating Dry Dock (Mechanical/Electrical) Inspection Checkoff List (1 of 2)

[illegible]

Signature of Inspector

Firm

Floating Dry Dock (Mechanical/Electrical) Inspection Checkoff List (2 of 2)

DRY DOCK OWNED OR LEASED BY _____

Sheet No. ____ of ____

DRY DOCK SIZE AND DESIGNATION _____

Date _____

GRAVING DRY DOCK NO. _____

INSPECTION CHECKOFF LIST

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Basic Structure				
Coping				
Walls				
Galleries				
Altars				
Service Tunnels				
Stairs and Elevators				
Floor				
Apron				
Caisson Seats				
Drainage Culverts				
Drainage Tunnels				
Filling Tunnels				
Discharge Tunnels				
General Appearance				
Fittings				
Portable Guardrails				
Cleats				
Bollards				
Roller Chocks				
Handrails				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Graving Dry Dock Inspection Checkoff List (1 of 3)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Gratings				
Crane Track				
Draft Gages				
Blocking				
Keel Blocks				
Bilge Blocks				
Hauling Bilge Blocks				
Services				
Compressed Air Piping & Valves				
Mechanical Equipment				
Capstan No.				
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |				
Sluice Gates				
Sluice Gate Leaf				
Sluice Gate Guides				
Sluice Gate Operator				
Sluice Gate Controller				
Hydraulic Operating Gear				
Lubrication System				
Preservation				
Check Valves				
Valve Leaves				

Signature of Inspector

Firm

Graving Dry Dock Inspection Checkoff List (2 of 3)

Sheet No. of

[illegible]

Signature of Inspector

Firm

Graving Dry Dock Inspection Checkoff List (3 of 3)

CAISSON OWNED OR LEASED BY _____

Sheet No. ____ of ____

CAISSON SIZE AND DESIGNATION _____

Date _____

CAISSON NO. _____

INSPECTION CHECKOFF LIST

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Basic Structure				
Shell Plating				
Structural Framing				
Bulkheads				
Deck Plating				
Top Deck Covering				
Fenders				
Wood Backing for Gasket				
Rubber Gasket				
Exterior Preservation				
Interior Preservation				
Ballast Compartment Preservation				
General Condition				
Fittings				
Portable Guardrails				
Hatches				
Cleats, Chocks				
Steps, Ladders, Handrails				
Gratings				
Airports				
Compressed Air Piping				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Caisson Inspection Checkoff List (1 of 6)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Compressed Air Cont Valves				
Inclinometers				
Water Level Indicators				
Lighting Fixtures				
Mechanical Equipment				
Capstan No. 1				
Capstan Motor				
Motor Controller				
Capstan No. 2				
Capstan Motor				
Motor Controller				
Dewatering Pump No. 1				
Pump Motor				
Motor Controller				
Lubrication System				
Foot Valve				
Discharge Valve				
Valve Operator				
Check Valve				
Dewatering Pump No. 2				
Pump Motor				
Motor Controller				
Lubrication System				

Signature of Inspector

Firm

Caisson Inspection Checkoff List (2 of 6)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Foot Valve				
Discharge Valve				
Valve Operator				
Check Valve				
Trimming Pump No. 1				
Pump Motor				
Motor Controller				
Discharge Valve				
Trimming Pump No. 2				
Pump Motor				
Motor Controller				
Discharge Valve				
Flood Valves				
Flood Valve No. 1				
Valve Operator				
Flood Valve No. 2				
Valve Operator				
Flood Valve No. 3				
Valve Operator				
Flood Valve No. 4				
Valve Operator				
Flood Valve No. 5				
Valve Operator				

Signature of Inspector

Firm

Caisson Inspection Checkoff List (3 of 6)

Sheet No. _____ of _____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Flood Valve No. 6				
Valve Operator				
Flood Valve No. 7				
Valve Operator				
Flood Valve No. 8				
Valve Operator				
Flood Valve No. 9				
Valve Operator				
Flood Valve No. 10				
Valve Operator				
Flood Valve No. 11				
Valve Operator				
Flood Valve No. 12				
Valve Operator				
Flood Valve No. 13				
Valve Operator				
Flood Valve No. 14				
Valve Operator				
Flood Valve No. 15				
Valve Operator				
Flood Valve No. 16				
Valve Operator				
Flood Valve No. 17				
Valve Operator				
Flood Valve No. 18				
Valve Operator				

Signature of Inspector

Firm

Caisson Inspection Checkoff List (4 of 6)

Sheet No. ___ of ___

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Flood Valve No. 19				
Valve Operator				
Flood Valve No. 20				
Valve Operator				
Flood Valve No. 21				
Valve Operator				
Flood Valve No. 22				
Valve Operator				
Flood Valve No. 23				
Valve Operator				
Flood Valve No. 24				
Valve Operator				
Flooding Valve No. 1				
Valve Operator				
Flooding Valve No. 2				
Valve Operator				
Flooding Valve No. 3				
Valve Operator				
Flooding Valve No. 4				
Valve Operator				
Equalizing Valve No. 1				
Valve Operator				
Equalizing Valve No. 2				
Valve Operator				

Signature of Inspector

Firm

Caisson Inspection Checkoff List (5 of 6)

Sheet No. of [illegible]

Signature of Inspector

Firm

Caisson Inspection Checkoff List (6 of 6)

DOCK OWNED OR LEASED BY _____

Sheet No. ____ of ____

DATE _____

PUMPHOUSE NO. ____

Inspection Checkoff List

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Basic Structures				
Roof				
Walls				
Floor				
Pump Pit				
Suction Chamber				
Suction Bells				
Discharge Tunnels				
Stairs				
Windows				
Doors				
General Preservation				
Fittings				
Gratings				
Ladders				
Hatches				
Handrails				
Desk and Chair				
Bulletin Board				
Lighting Fixtures				

S=Satisfactory

U=Unsatisfactory

M=Marginal

Signature of Inspector

Firm

Pumphouse Inspection Checkoff List (1 of 5)

Sheet No. _____ of _____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Mechanical Equipment				
Pump No. 1 2 3 4				
Pump Motor				
Motor Controller				
Shaft and Coupling				
Guide Bearing				
Impeller				
Wearing Ring				
Pump Casing				
Packing Gland				
Lubrication System				
Lubrication System				
Flanges and Gasket				
Preservation				
Gates and Valves				
Suction Gate or Valve				
Suction Gate or Valve Operator				
Suction Gate or Valve Controller				
Lubrication System				
Preservation				
Discharge Valve				
Discharge Valve Operator				
Discharge Valve Controller				
Lubrication System				
Preservation				
Check Valve				

Signature of Inspector

Firm

Pumphouse Inspection Checkoff List (2 of 5)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Nonslam Mechanism				
Sump Pump No. 1				
Pump Motor				
Motor Controller				
Suction Valve				
Discharge Valve				
Check Valve				
Lubrication System				
Sump Pump No. 2				
Pump Motor				
Motor Controller				
Suction Valve				
Discharge Valve				
Check Valve				
Lubrication System				
Sewage Pump No. 1				
Pump Motor				
Motor Controller				
Check Valve				
Float Switch				
Lubrication System				
Sewage Pump No. 2				
Pump Motor				

Signature of Inspector

Firm

Pumphouse Inspection Checkoff List (3 of 5)

Sheet No. ____ or ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Motor Controller				
Check Valve				
Float Switch				
Lubrication System				
Air Blower				
Blower Motor				
Blower Controller				
Services				
Steam Piping and Valves				
Fresh Water Piping and Valves				
Compressed Air Piping & Valves				
Power Cables and Outlets				
Communication Facilities				
Ventilation Ducts				
Ventilation Louvers				
Ventilation Motor				
Ventilation Motor Controller				
Ventilation Heat Unit				
Firefighting Equipment				
Electrical Equipment				
Control Panel				
Selector Switches				
Pushbutton Controls				
Warning Lights				

Signature of Inspector

Firm

Pumphouse Inspection Checkoff List (4 of 5)

Sheet No. _____ of _____

[illegible]

Signature of Inspector

Firm

Pumphouse Inspection Checkoff List (5 of 5)

RAILWAY OWNED OR LEASED BY _____

Sheet No. ____ of ____

DATE _____

MARINE RAILWAY NO. _____

Inspection Checkoff List

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Cradle				
General Condition				
Wood Decking				
Block Bearers				
Elevated Framework				
Elevated Walkways				
Stairs				
Underdeck Framework				
Drawhead Girder				
Bottom Chord				
Bitumastic Enamel on Steel				
Preservative on Wood				
Keel Blocks				
Bilge Blocks				
Wheel Bearing Supports				
Groundways and Rails				
Settlement of Track				
Condition of Piles				
Condition of Stringer				
Condition of Cross Bracing				
Track Plates and Fasteners				

S=Satisfactory U=Unsatisfactory M=Marginal

Signature of Inspector

Firm

Marine Railway Inspection Checkoff List (1 of 4)

Sheet No. ____ of ____

ITEM INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Rails and Fasteners				
Condition of Chain Guides				
Preservation				
Rail Alignment				
Mud and Silt Condition				
Wheels, Rollers, Roller Frame				
Wheels				
Wheel Bearings				
Rollers				
Roller Spindles				
Roller Frames				
Spacer Blocks				
Wood Filler Pieces				
Fittings				
Fixed Guardrails				
Portable Guardrails				
Cleats				
Ringbolts				
Bilge Block Hauling Chain				
Bilge Block Locking Pawls				
Bilge Blocks				
Keel Blocks				
Draft Marks				
Lighting Fixtures				
Ladders and Steps				

Signature of Inspector

Firm

Marine Railway Inspection Checkoff List (2 of 4)

Sheet No. ____ of ____

ITEMS INSPECTED	CONDITION			REMARKS (Additional Remarks Use Other Side)
	S	U	M	
Chains and Sheaves				
Inhaul Chains				
Outhaul Chains				
Inhaul Sheaves				
Outhaul Sheaves				
Chain Connecting Links				
Sheave Fasteners				
Preservation				
Chain Slack				
Hauling Machinery				
Gearing				
Shafting				
Bearings				
Sprockets on Wildcat				
Frame				
Anchor Bolts				
Handbrake				
Locking Pawl				
Clutch				
Safety Guards				
Lubrication				
Preservation				
Motor				
Electric Brake				
Controller				
Speed Limit Device				

Signature of Inspector

Firm

Marine Railway Inspection Checkoff List (3 of 4)

Sheet No. _____ of _____

[illegible]

Signature of Inspector

Firm

Marine Railway Inspection Checkoff List (4 of 4)

PART IV - PROCEDURES

1. This part of the certification shall provide a list of the data required by section 5 and 6 of this standard. The activity shall maintain a bound set of these procedures available for inspection by the Government. Individual documents shall be made available to the Government upon request. The following two pages are examples of the type of operating procedures to be developed. Personnel qualification procedures and the security, fire, and disaster plans required by section 6 may be developed in any suitable form.

DRYDOCK CHECKOFF LIST

SHIP NAME			Number		
Dry Dock No.		Date: Dock Undock		Time: Dock Undock	
Draft	Fwd.	Aft		List	
Docking					
Undocking					
DOCKING CHECKOFF LIST					
Action Item		Shop	Time	Initial	
Dry Dock Connections and Services at Dry Dock					
Ship Ballasted for Dry Docking					
Underwater Retractable Equip. Housed					
All Items Satisfactory to Move Ship to Dry Dock					
Draft Marks Checked by Dockmaster					
The Ship is Released to Move to Dry Dock					
Ship in Dry Dock and on Blocks					
Dockside Services Connected					
Dry Dock Released to Pump Down Dry					
Dry Dock Pumped Dry					
Remarks:					
UNDOCKING CHECKOFF LIST PART I (See Part II for detailed undocking checkoff list)					
All Items Satisfactory to Move Ship Out of Dock		Shop	Shop	Shop	Shop
Ship is Released for Moving Out of Dock		Time	Shop		
Remarks:					

UNDocking CHECKOFF LIST PART II

DETAILED UNDocking CHECKOFF LIST FOR SUBMARINES* Date

Shops will ascertain the status of the following to assure the safety (final stability) of the ship prior to and at the time of undocking:						
PRIOR TO FLOODING		Yes	No	Shop	Initial	
Systems and/or Components Tested and Operable						
1. High Pressure MBT Blow						
2. Service Air to Var. & San. Tanks						
3. Low Pressure Blow						
4. Drain - For Emergency Use						
5. MBT Vents						
a. Power From BCP With Ind. Ckt.						
b. Hand From BCP With Ind. Ckt.						
6. Watertight Doors and Hatches						
7. Cavity Drains Open and/or Blanked as Required						
Systems and/or Component Condition						
1. Vent Valves Shut and Locked in Power Position						
2. Manual Operators on Solenoid Hydraulic Control						
Valves for MBT. Vent Valves COVERED and RED TAGGED To Prevent Operation						
3. BCP Operators for MBT Vent Valves Covered and Red Tagged to Prevent Operation						
4. By-Pass Valves on Hydraulic Operators for MBT Vent Valves OPEN & Red Tagged						
5. Torpedo Tube Doors Shut, Interlocks in place & LOCKED						
6. Signal Ejector Doors Shut, Interlocks in place & LOCKED						
7. GDU Doors Locked Shut						
8. All Sea Valves Secured in Accordance with Latest Sea Valve Security Memorandum						
9. Underwater Retractable Equipment Housed						
All Items Satisfactory to Commence Flooding	Shop	Shop	Shop	Shop	Shop	Shop
Dock is Released for Partial Flooding	Time	Shop				
Undocking		Yes	No	Shop	Initial	
Flood Dock to 20 Foot Draft Mark on the Ship & Stop Flooding						
1. Inspection (See Current STATION BILL) of Ship for Leaks						
2. MBT's Blown With Low Pressure Air System Satisfactorily						
3. MBT's Blown With High Pressure Air Syst. Satisfactorily						
4. MBT Vent Valves Soap Tested Satisfactorily and Covers Replaced						
5. Ship Ballasted For Undocking						
All Items Satisfactory to Complete Flooding	Shop	Shop	Shop	Shop	Shop	Shop
Dock is Released to Complete Flooding	Time	Staff Supervisor				

* This sample page is for a submarine undocking. Checkoff list should be tailored to specific ship type.

SAMPLE LETTER OF ACCEPTANCE

SUPERVISOR OF SHIPBUILDING
CONVERSION AND REPAIR
LETTERHEAD

(Date)

(Name of Company Official)

(Title of Official)

(Address)

Dear (Name of Company Official):

Receipt of your Facility Certification Report of (Date of Report)
for (Type of Facility and Identifying Number) is acknowledged.
Your report is considered satisfactory/unsatisfactory.*

Supervisor of Shipbuilding
Conversion and Repair, USN

*If considered unsatisfactory provide details.

(Note: Acceptance form for Navy activities certifying own drydocks
to be similar, except letterhead will be Naval Sea Systems
Command.)

(SAMPLE CERTIFICATION FOR SMALL SHIPS)

DRYDOCK CERTIFICATION
(Bidder to fill in all blanks)

I, _____, hereby certify as follows:

(i) That I am a duly authorized representative of _____
_____ which is submitting a bid under IFB
_____;

(ii) That the bidder has the following drydocks capable of drydocking the vessel
covered in lot _____ of the invitation:

(iii) That one of the drydocks listed in (ii), above, will be used for the performance
of the drydock work under lot _____.

(iv) That none of the drydocks listed in (ii), above, can be used for the performance
of the drydock work under lot _____ during the period specified in the
invitation for performing said lot _____ because of pre-existing firm
commitments for the use of said drydocks during said period;

(v) That due consideration has been given to any priority of work to which the U.S.
Government may be entitled by reason of any agreements between the bidder and
the U.S. Government under which any of the drydocks listed in (ii), above may have
been furnished the bidder by the U.S. Government.

(Signature of Authorized Representative)

(Date of Signature)

(Typed Name of Authorized Representative)

(Title of Authorized Representative)

(Note: Form for Navy activities certifying own drydocks to be similar except delete
reference to bids, or note N.A.)

MIL-STD-1625A (SH)
7 September 1976
APPENDIX

(SAMPLE CERTIFICATION FOR DOCKMASTER)

DOCKMASTER CERTIFICATION

I, _____, hereby certify
that the dockmaster in charge of docking/undocking evolutions
is professionally qualified, through training and experience,
to conduct these evolutions in a safe and reliable manner.
Attachment (A) is a resume of the dockmaster's training and
experience upon which I have based my certification of
"dockmaster."

(Signature of Authorized Representative)

Date of Signature

(Typed Name of Authorized Representative)

(Title of Authorized
Signature)

☆U.S. GOVERNMENT PRINTING OFFICE: 1976-603-766/6845

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval
No. 22-R255

INSTRUCTIONS: The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.

DOCUMENT IDENTIFIER AND TITLE

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

3. IS THE DOCUMENT RESTRICTIVE?

☐ YES ☐ NO (If "Yes", in what way?)

4. REMARKS

SUBMITTED BY (Printed or typed name and address - Optional)

TELEPHONE NO.

DATE

DD FORM 1426
1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

S/N 0102-014-1802

PSY500006315

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

file
613-2
630-4.1

*Recd
1-14-80*

D. Neat (Original)
→ M. McKenna
C. Requa
B. Crofoot

IN REPLY REFER TO:
YFD-69
Ser 460-150

7 JAN 1980

-5-

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Port of Portland, Portland, Oregon

Subj: Lease Contract N00024-79-L-0003; Floating Drydock YFD-69;
Joint Inventory and Joint Physical Condition Survey

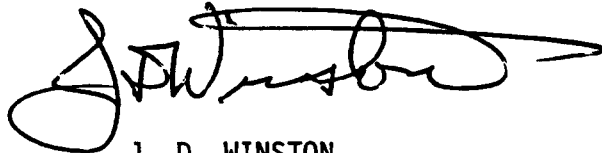
Ref: (a) NAVSEA ltr 0704L/HJ Ser 153 of 14 Jun 1979 to Port of
Portland
(b) Fonecon between Mr. Requa (Port of Portland) and Mr. Schmidt
(SUPSHIP Seattle) on 02 Jan 1980
(c) Navy Design Manual NAVDOCKS DM-29 (June 1963 edition), Volume III
Entitled 'Drydocking Facilities, Operations, Maintenance, and In-
spection'

1. In accordance with reference (a), a Joint Inventory and Joint Physical Condition Survey of floating drydock YFD-69 is required prior to 01 February 1980 in connection with the expiration of Lease N00024-70-L-0010 and the inception of the new Lease N00024-79-L-0003 for the subject drydock.
2. Reference (b) confirmed that the YFD-69 is presently burdened with a ship tentatively scheduled to go off the drydock approximately 26 January 1980. Since the condition survey and inventory are contractually mandatory, request that a schedule be established as soon as practicable. Upon notification, the joint inventory and condition survey will be conducted.
3. For planning purposes and to facilitate the future inspection, the Lessee is requested to provide the following:
 - a. Soundings of the Drydock basin.
 - b. Diver's report of the condition of the underwater body.
 - c. Comparison readings of the water level indicators.
 - d. Random ultrasonic readings of plate thickness measurements as specified in reference (c).

YFD-69
Ser 460-150

7 JAN 1980

e. Removal of various sections of wood decking for examination
of the pontoon deck.

A handwritten signature in black ink, appearing to read 'J. D. Winston', with a long horizontal stroke extending to the right.

J. D. WINSTON
By direction

Copy to:
CNO (NOP-43N)
NAVSEA (070424)

DONALD R. HUDSON

NAVAL ARCHITECTS, INC.

MARINE ENGINEERING
DESIGN & CONSULTATION
PHONE (503) 265-7107

SWAN ISLAND
DRYDOCK AREA - BLDG. 50
PORTLAND, OREGON 97217

April 22, 1980

Supervisor of Shipbuilding
U. S. Navy
Conversion and Repair
Seattle, Washington 98115

Attention: Charles Winston

Subject: U. S. Navy Certification of Port of Portland Floating Drydocks

Dear Sir:

By the direction of Mr. Charles McKeown, procedures have been initiated for this firm to prepare documentation for submittal as prescribed for U.S. Navy Certification of the Port of Portland floating drydocks.

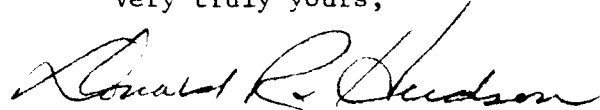
Existing Certification of Drydocks Nos. 1, 2 and 3 expires in August, 1980. It is the Port's intention that initial Certification of new Drydock No. 4 be accomplished concurrently with the recertification of Drydocks Nos. 1, 2 and 3.

Recertification will be in accordance with the requirements of MIL STD 1625A of January 31, 1979, as will the initial Certification of Drydock No. 4. Please send us a copy of this current MIL STD.

We intent to initiate the required Condition Survey work on or before May 15, 1980 and maintain a schedule for completion prior to the August expiration date.

This letter is to make a matter of record the Port of Portland's intention to fulfill the above Certification requirements.

Very truly yours,


DONALD R. HUDSON

DRH:ad
cc: Charles Requa

#09961
09962
09963
09964

PSY500006318

FACILITY CERTIFICATION

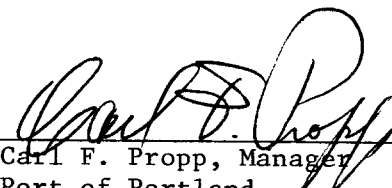
REPORT

PORT OF PORTLAND
SWAN ISLAND SHIP REPAIR YARD

Box 3529
Portland, Oregon 97208

DRY DOCK #1
DRY DOCK #2
DRY DOCK #3

JUNE, 1975



Carl F. Propp, Manager
Port of Portland
Swan Island Ship Repair Yard

PSY500006319

DRY DOCK #1

PART I - SUMMARY

1. Length of the Facility 528'0" (length of pontoon)
598'0" (length over outriggers)
Breadth 90' (between side walls)
Maximum Depth over Keel Blocks 29'11"
Certified Docking Capacity 14,000 L.T. (subject to verification
Part III of certification)
Designed by Bureau of Yards and Docks under supervision of
Bureau of Ships
Built by Kaiser Shipyard, Vancouver, Washington Year 1945
Designation of the Facility Dry Dock #1 (YFD-69)
2. Recent overhaul of work:
No major overhaul, normal maintenance only.
Facility was drydocked in 1965 for painting the bottom.
3. Modifications or alterations made since building of facility
which modify capacity or dimensions of facility:
None.
4. Brief history of ships drydocked in facility:
 - a. Heaviest ship docked in facility:
SS Dianna 3/10 - 3/20/75 LOA 631'5" LT 15,194
 - b. Heaviest ship docked in last three years:
Same.

- c. Other ships drydocked that demonstrate capacity of facility:

Star Taranger	1/10 - 1/29/75	LOA 564"	LT 15,000
SS Washington	5/05 - 5/10/73	LOA 528'68"	LT 13,650

- d. Ships damaged during drydocking requiring repairs in excess of \$5,000.00.

None.

5. Summary of facility certification:

- a. The maximum docking capacity of this facility based on this certification is 14,000 L.T. (subject to verification Part III of certification).
- b. Design data provided in Part II of this certification substantiates this value.
- c. The material survey of the facility provided in Part III of this certification confirms that the facility can safely dock a ship of the above weight.

DRY DOCK #1

PART IV

SECTION 1

OPERATING INSTRUCTIONS FOR DOCKING AND UNDOCKING

A. Preparation for Docking

As soon as it is known that a particular ship is to be drydocked, the Dockmaster obtains the ship's "docking plan" if possible, and inquires into the draft and general condition of the ship. If practicable, a visit to the ship is made by the Dockmaster. In the case of a Navy ship, a pre-docking conference is scheduled.

Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for drydocking. If the vessel is damaged, the Dockmaster determines if the ship can be docked in the condition in which it will arrive. He determines if there is damaged metal which should be removed by underwater cutting, and which blocks should be omitted in way of the damaged areas to allow for damaged plating which cannot be removed. At the time of the docking, the Dockmaster checks to see the vessel has arrived in exactly the condition for which he has prepared the dock.

1. The docking plan is required sufficiently in advance of the docking date to allow time for planning and block building. Information required includes length, beam, draft, transverse sections of the ship for setting of bilge blocks, and location of docking keels, if any. It should also point out hull obstructions, such as propellers, sound gear, etc., as well as the location of openings in the ship's hull, below the turn of the bilge, from which blocking must be kept clear.

Docking plans for warships should include a detailed tabulation of the actual shape of the bilge block caps, and also the location of turrets and other heavy weights.

The ship docking plan is corrected in accordance with the findings at each docking. Deviations from the docking plan are made only when considered justified.

2. When no docking plan is available, the Dockmaster improvises a plan using any or all of the following expedients:

- a. It is determined who built the ship and in what year. Plans of similar ships of that year and build are consulted, assuming the deadrise and other characteristics of the ship will follow the same trend.
- b. The ship's interior is inspected to determine if it has a flat or a bar keel. Using a hook or pole, it is determined whether the ship has a bilge keel or rolling chocks, and also the length of these appendages. On a riveted ship, the presence of a bilge keel and its extent is verified on the inside by an examination of the lines of rivets. Offsets for determining the height and location of bilge blocks can often be taken from the interior of the ship, making due allowances for thickness of plating and external projections.
- c. A diver may be sent down to survey the underwater hull of the ship. This is often essential in case of a damaged ship, even when a docking plan is available.

3. With the length, general lines of ship and the bilge block spacing of the dock known, it is determined where the required bilge blocks will land with respect to the ship's structure. Starting aft (or forward) in the ship, the first bilge block station is set up. With battens and rules, the deadrise at the point where the bilge blocks will be set up is determined. The horizontal distance out and the vertical distance up for each assumed bilge block station is measured. The curve of the bilge caps will usually follow a 3-foot or 4-foot water line, or the curve may follow a side stringer.

4. The weight of the vessel is determined through the formula on the "Pre-docking Check". (See Appendix, Item 1.)

5. Before docking a ship, a study is made of its weight distribution, the amount and direction of its trim and the amount and direction of its list. The stern of the ship, its propellers, rudders, etc., should be accessible for work, while the bow of the vessel, unless damaged, can readily be made to overhang the dock and even extend beyond the end of the outrigger. The docking plan is studied carefully in all respects, especially in regard to projections which may interfere with the landing of the ship on the blocks. Blocks in the way of projections are removed, as noted in the docking plan, to provide ample clearance.

In general, the longitudinal center of gravity of a long ship is placed near the mid-length of the dock. This will produce the least trim in the dock. Short ships are placed on one end of

the dock rather than near the middle. This allows enough docking space for the docking of another ship. Placing the ship near the end of the dock also provides accessibility from the outriggers to the rudders and propellers.

6. When a ship is to be drydocked, the Dockmaster inquires into the draft and general condition of the ship. Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for docking. Shortly before docking, the ship advises the Dockmaster that the ship has been brought to and will be maintained at the conditions agreed upon. Any exceptions are specifically noted. The Dockmaster is prepared to make the necessary adjustments on account of list or trim by properly distributing weights on the ship or by listing or trimming the dock. Drafts of the ship forward and aft are always checked by the Dockmaster prior to docking and the afloat waterline is marked with chalk at the bow and stern, port and starboard. These chalk marks are visible to the Dockmaster from the wingwalls.

After deciding the location of the ship in the dock, the following steps are taken:

- a. Prior to docking, a pumping plan is prepared for the guidance of the Dockmaster. This plan shows, at various stages of the docking, how much water will be left in each ballast compartment in order to reduce to a minimum the strains on both ship and dock. The pumping plan is prepared from the ship weight diagram, the draft, trim and list information obtained from the ship and from displacement tables.
- b. From the docking plan, the location, height and type of blocks necessary to dock the ship are determined. The bow and stern positions of the ship are accurately laid out and marked on the top of both wingwalls and on the keel blocks. All fore and aft measurements are made from these marks.

At the after end of the ship, center line keel blocks are left out abaft of the last point in the keel where a load is to be carried, otherwise a vessel entering the dock with a trim by the stern might land on a rudder skeg or other relatively frail part of the structure before landing on the keel proper.

Keel blocks are lined up to match the keel of the ship and the timber pieces in each block are securely fastened to each other.

The number and location of bilge blocks are determined from the docking plan. The bilge block setting is determined from the cross-sections of the ship. The distance from the center line of the ship to each bilge block, and the required vertical height of the bilge block above the bottom of the keel are established. The bilge blocks are then built up to their proper vertical height, and are sloped to the contour of the ship's bottom.

B. Differential Pumping

The contained water in each ballast compartment is adjusted to the weight of the ship resting on the blocks over that particular compartment, thereby achieving as close a balance of forces as possible. This will reduce the bending and shearing stresses to a minimum.

When blocks are set in position for docking, the Dockmaster checks his deflection gage readings to see that the dock has no deflection and is in an unstressed condition. The Dockmaster checks the alignment of the permanent keel blocking. When no deflection is in the dry dock, the permanent blocking should be in perfect alignment. Before any flooding or pumping operations are started, the telescopes and targets are checked to be certain the original settings have not been disturbed.

1. During docking operations, a trained operator is stationed at each transit platform. His readings are transmitted to the Dockmaster, keeping him informed as to the condition of the dock. Even with the most careful operation of pumps and flooding valves, the dock will become deflected.

2. The Dockmaster strives to keep dock deflection to a minimum. The Dockmaster has full and complete control of the deflection of the dock. By slow and deliberate operation he can correct any condition tending to introduce stresses or bending moments into the dock structure. By pumping a pontoon which is low, or flooding a pontoon which is high, he can eliminate any deflection in the dock.

3. If, as a vessel is being landed on the blocks, a sudden downward deflection or change of deflection is noted in the dock in a certain area, which cannot be accounted for by the pumping, the Dockmaster will immediately stop all operation. Investigations will be made immediately to determine whether any misplaced blocks, projection of the ship's bottom or irregularity of the bottom plating have caused the dock to become deflected.

4. In case of power failure, fire or other casualty. all valves are closed unless instructed otherwise by the Dockmaster.

C. Dry Dock Operation

The Control House, located on the top deck of the "B" side wall near the after end of the dock, affords the operator a good view of the ship being docked. All motors for main unwatering pumps, vacuum pumps, flooding valves, discharge valves, suction valves and cross-over valves are operated by remote control from the control board in the Control House.

1. Control and Indicating Board

The control and indicating boards are of the dead front type and are installed in sections along both sides of the Control House. The valve control boards are installed at the outboard side of the Control House; the pump control boards are installed at the inboard side of the House. All control board units have a slightly inclined bench top. The valve control boards include vertical indicating boards, in which are located the valve position indicators, water level indicators and draft indicators.

a. Valve Control Board

The valve control board is made up of five sections; two for flooding valves, one for discharge valves, one for suction valves and one for suction valves and crossover valves.

The inclined portion of the board is provided with a momentary contact push button station for the control and indication of each motor operated valve. The push button station consists of three buttons marked "open", "stop" and "closed", and of two indicating lights.

On the vertical part of the board is mounted a position indicator for each of the flooding, discharge, suction and crossover valves, to indicate the extent of the opening of the valve. There is also mounted a toggle switch which controls the circuit for illuminating the instruments on the board.

b. Pump Control Board

The pump control board, comprising bench top part only, is made up of two sections; one for the main unwatering pumps and one for the vacuum pumps.

On the main pump section is mounted a push button station for each main pump motor, consisting of two buttons marked "start" and "stop", and of one indicating light. An ammeter is provided to indicate the current consumption of each main pump motor.

On the vacuum pump section is mounted a push button station with indicating lights for each of the four vacuum pump motors and indicating lights for each of the four vacuum systems. In addition, two voltmeters and voltmeter switches are provided for indicating the 440-volt bus voltage of the "A" and "B" side main switchboards. The meters are flush-mounted under glass covers.

The push button station for each vacuum pump motor consists of "start" and "stop" push buttons and one indicating light.

The operating current for the Control House can be supplied from either one of the two 120/280-volt, three-phase lighting transformers located respectively on the "A" and "B" sides of the dock. A manually-operated double throw switch is provided on one of the walls of the Control House whereby the Control House operating current can be connected to either of the two sources of supply. A safety switch with lock is provided in the Control House on the circuit which supplies the control board.

2. Use of Control Board

With the equipment provided it is possible for the operator in the Control House to start and stop any one of the eight unwatering pump motors and any one of the four motors for the vacuum pumps, used for priming the main pumps. The white indicating light for each vacuum system indicates that sufficient vacuum is available for priming the main pumps.

The red indicating light for each unwatering pump motor gives a positive indication if the motor starter is closed. The reading of the ammeter for each pump motor indicates whether or not the pump is pumping water.

The control board also enables the operator to open or close any one of the 44 suction, discharge, flooding and crossover valves. The indicating lights for the valve operating motors are so wired that one light gives a red indication when the valve is open; the other light gives a green indication when the valve is closed; both lamps lighted simultaneously indicate that the valve is in an intermediate position.

3. Water Level and Draft Indicators

For indicating the water level in each of the 16 water ballast compartments and the draft of the dock at both ends of the hull, indicators are mounted on a vertical pontoon on the indicating board in the Control House.

4. Operating Chart

An operating chart is mounted in the Control House. The chart indicates the relative location of all main pumps and valves together with a diagrammatic outline of the piping. The operator, thus, has before him a picture showing the location of the main equipment on the dock. The chart also gives the location of the connections for the draft and water level indicators.

5. Clinometers

The Control House is provided with one Trim Indicator Spirit Clinometer and one Heel Indicator Spirit Clinometer. In addition, the Control House is provided with two micrometer clinometers; one for measuring trim, the other for measuring list.

The vertical scale on the clinometer for registering trim reads the difference in level at each end of the dock in feet and inches, with a maximum scale reading of plus or minus ten feet.

The vertical scale on the clinometer, for registering list, reads the angle which the dock deviates from the vertical from a zero or vertical point at the middle of the scale to a maximum scale reading of ten degrees on either side of the zero point.

6. Communications

The main control panel for the dock loud speaker intercommunication system is located in the Control House. By means of a microphone and receiver handset, and two loud speakers installed in the Control House, communication is provided to all stations on the dock.

7. Exterior Indicating Lights for Main Pump Motors

An indicating light to show when each main pump is running is provided on the outside of each of the two end walls of the Control House; a total of eight indicating lights on each wall. These lights are connected in parallel with the indicating lights for the main pump motors on the control board inside the Control House and are clearly visible from any position along the side wall.

D. Docking of Ship

The first step is the flooding of the dock to a draft over blocks required for the ship. If the ship is on an even keel, with no trim or list, the dock is flooded until the draft over the keel blocks is equal to the draft of the ship plus a minimum clearance of one foot. If the ship has a trim, the dock must be adjusted to accommodate it.

1. If trim is excessive, the Dockmaster insists that trim be reduced by flooding the ship's tanks. If the ship is trimmed by the stern (or by the bow), it is desirable to trim the dock by the same amount to parallel the ship. This is accomplished by a graduated simultaneous flooding of all the ballast compartments.

2. Before flooding the dock, all hatches, valves, vents and other openings not directly required for the flooding operation are closed. All openings in the safety deck and the buoyancy chambers are securely closed.

In lifting the ship, there is a reduction in the dock stability as the ship's bottom comes out of the water. Any list or trim the dock may have been given in picking up the ship should be entirely out at this point and the dock should be on an even keel. To maintain dock stability, the dock should be without list at the time the pontoon deck goes under, and the pumping is kept under careful supervision.

E. Docking a Listed Ship

Before docking a listed ship, the ship's officers are requested to correct the list and get the ship on an even keel. If the list cannot be eliminated, it is reduced to the smallest possible angle. If the incoming ship has a list to port (or to starboard), the dock must be listed by the same amount to square up with the ship. This is accomplished by adjusting the amount of water in the wing wall compartments.

1. When underwater compartments are flooded and no inside inspection can be made, divers are used to locate and describe the extent of the damage. If necessary, the ship is hauled into the dock temporarily until the damaged area is over the pontoon deck. The dock is then positioned vertically so that the diver has a platform to work on while making his inspection.

Having made as thorough an examination as possible, the extent of the damage is plotted. The blocking set-up is then corrected by building up, cutting down or omitting blocks, and by using soft cap blocks where conditions are uncertain. The use of shores under unsupported spots is sometimes advisable.

2. When raising a dock with a damaged ship on the blocks, extra precautions are taken while pumping dock ballast compartments.

G. Undocking a Ship

After repairs are completed, the ship is checked to see that all underwater valves and openings are closed. A report to this effect is received from the ship. The Dockmaster then examines all blockings. Loose blocks are dogged to each other and shoring is removed or lashed down. Electric grounds and all other connections between ship and dock are let go. All ship handling lines, fender floats, etc., are in place and made fast.

1. Before flooding, the docking log book is checked so that the dock can be given the same trim and list that it had in picking up the vessel. In case of a severe damage job, the trim of the ship at undocking is estimated and the dock handled accordingly.

2. The deflection system is utilized to adjust the contained water levels in each ballast compartment in order to prevent strain on ship and dock.

Before flotation drafts have been reached, flooding is ceased and inquiry is made of the ship as to the watertightness of its underwater body.

Before the bow (or stern) of the ship reaches a draft at which flotation can be expected, the flooding valves in the various ballast compartments are successively closed to trim the dock to the desired amount.

No list is applied to the dock until after the bottom of the ship is well submerged and the zone of critical stability of the dock has been passed.

Having reached the desired trim, all valves are opened wide until the highest blocks sink at least one foot below the bottom of the ship. At this time flooding is stopped and the ship is hauled out of the dock. All valves are then closed.

3. When the ship has been hauled out of the dock, the de-watering pumps and pump compartments are started so that the dock will rise uniformly without any undue strain on it. While pumping the dock, any existing trim is eliminated by stopping certain pumps of the various compartments to bring the dock to an even keel.

The dock is raised to the desired pontoon freeboard, and pumping is stopped. All valves are closed and the dock secured.

SECTION 2

CASUALTY CONTROL PROCEDURES

A. Power Failure

The secondary power supply is turned on in the substation.

A communications system is located on the dry dock, consisting of a battery powered megaphone plus battery powered two-way radios for communication from the machinery decks. Dockhands are instructed which valves to close by the Dockmaster. The dry dock will be trimmed manually and all valves will be closed until power is restored.

Battery powered battle lanterns are at each stairway to the machinery deck.

B. Personnel Injuries

A nurse is on duty 24 hours in the first aid station, located at the foot of the dry docks in Building 80. Stretchers are located on the cranes. They can be lowered into ships or onto the deck of the dry dock.

Fire and other casualties are covered in Section 4.

SECTION 3

OPERATIONAL LIMITATIONS

A. Structural Limitations

14,500 tons (subject to verification in Part III of this certification)

B. Mooring Equipment Limitations

None

C. Material Handling Limitations

Restricted to 21,500 pounds fork or lift truck loading on four front tires.

D. Stability Limitations

Each vessel is calculated for placement of ship on dry dock, minimizing stress to ship and dry dock. Hydrostatic curves on the ship are checked to determine LCG of ship against LCG of dry dock. Then transverse stability is checked using VCG of ship in coordination with designed curves of the dry dock.

SECTION 4

SECURITY PATROL AND FIRE WATCH

A. Security patrol and fire watch are provided by the gate guards and dock attendants. A gate guard and dock attendant are on duty 24 hours per day, seven days per week. For protection from intrusion, a gate guard is stationed at the only open roadway entrance to the fenced Ship Repair Yard. This denies any easy entry to the yard by persons whose presence is unauthorized and undoubtedly deters theft and vandalism. A dock attendant patrols the yard, on his assigned shift, to apprehend possible over-the-fence intruders, keep a fire watch, inspect dry docks for malfunctions or to perform whatever emergency work is needed. A copy of the dock attendants written instructions, "Rules for Dock Attendants", is enclosed (see Item 2, Appendix). In case of emergencies the dock attendant notifies the gate guard, who contacts the necessary personnel, i.e., fire department, management personnel, etc., to handle the situation. Dock attendants have been trained to notify and direct emergency assistance to the proper location with a minimum of delay.

B. Fire equipment and systems available for immediate use:

The fire department is located two miles away, with a response time of four minutes. (See Appendix, Item 3 for a description of their facilities.) Also, fire equipment is available for use of vessels with a deactivated fire line system or no fire fighting system (see Appendix, Item 4).

Fire equipment located on Dry Dock #1:

One 5-pound CO₂ extinguisher in Control House and pump house.
Six 15-pound CO₂ extinguishers on each side of machinery deck.
Two fire monitors on each wingwall.
Six fire hose stations.

There is also an additional water supply available.

C. Flooding: Under conditions of high river water, the mooring jaws are lifted to their high elevation.

D. Storms: Constant surveillance of the dry dock is maintained. Additional help is made available if needed.

DRY DOCK #2

PART I - SUMMARY

1. Length of the Facility 458' over keel, 518' over outriggers
Breadth 92' beam at keel height
Maximum Depth over Keel Blocks 25'
Certified Docking Capacity 12,000 L.T. (subject to verification
Part III of certification)
Built by William Cornfoot & McIntosh Year 1921
Designation of the Facility Dry Dock #2

2. Recent overhaul work:

Towers rebuilt in 1940.

Towers recalked in 1948.

In 1969, all pontoons were drydocked, ballast removed, all valves gone over, butts were calked, calking compound applied to seams.

3. Modifications or alterations made since building of facility which modify capacity or dimensions of facility:

None.

4. Brief history of ships drydocked in facility:

a. Heaviest ship docked in facility:

Hawaiian Citizen 6/13 - 6/18/73 LOA 492' LT 12,000

b. Heaviest ship docked in last three years:

Same.

c. Other ships drydocked that demonstrate capacity of facility:

SS California	9/4 - 9/7/73	LOA 565'	LT 11,900
Canadian Mail	3/9 - 3/16/72	LOA 565'	LT 11,000

- d. Ships damaged during drydocking requiring repairs in excess of \$5,000.00:

None.

5. Summary of facility certification:

- a. The maximum docking capacity of this facility based on this certification is 12,000 tons (subject to verification Part III of certification).
- b. Design data provided in Part II of this certification substantiates this value.
- c. The material survey of the facility provided in Part III of this certification confirms that the facility can safely dock a ship of the above weight.

DRY DOCK #2

PART IV

SECTION 1

OPERATING INSTRUCTIONS FOR DOCKING AND UNDOCKING

A. Preparation for Docking

As soon as it is known that a particular ship is to be drydocked, the Dockmaster obtains the ship's "docking plan" if possible, and inquires into the draft and general condition of the ship. If practicable, a visit to the ship is made by the Dockmaster. In the case of a Navy ship, a pre-docking conference is scheduled.

Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for drydocking. If the vessel is damaged, the Dockmaster determines if the ship can be docked in the condition in which it will arrive. He determines if there is damaged metal which should be removed by underwater cutting, and which blocks should be omitted in way of the damaged areas to allow for damaged plating which cannot be removed. At the time of the docking, the Dockmaster checks to see the vessel has arrived in exactly the condition for which he has prepared the dock.

1. The docking plan is required sufficiently in advance of the docking date to allow time for planning and block building. Information required includes length, beam, draft, transverse sections of the ship for setting of bilge blocks, and location of docking keels, if any. It should also point out hull obstructions, such as propellers, sound gear, etc., as well as the location of openings in the ship's hull, below the turn of the bilge, from which blocking must be kept clear.

Docking plans for warships should include a detailed tabulation of the actual shape of the bilge block caps, and also the location of turrets and other heavy weights.

The ship docking plan is corrected in accordance with the findings at each docking. Deviations from the docking plan are made only when considered justified.

2. When no docking plan is available, the Dockmaster improvises a plan using any or all of the following expedients:

- a. It is determined who built the ship and in what year. Plans of similar ships of that year and build are consulted, assuming the deadrise and other characteristics of the ship will follow the same trend.
- b. The ship's interior is inspected to determine if it has a flat or a bar keel. Using a hook or pole, it is determined whether the ship has a bilge keel or rolling chocks, and also the length of these appendages. On a riveted ship, the presence of a bilge keel and its extent is verified on the inside by an examination of the lines of rivets. Offsets for determining the height and location of bilge blocks can often be taken from the interior of the ship, making due allowances for thickness of plating and external projections.
- c. A diver may be sent down to survey the underwater hull of the ship. This is often essential in case of a damaged ship, even when a docking plan is available.

3. With the length, general lines of ship and the bilge block spacing of the dock known, it is determined where the required bilge blocks will land with respect to the ship's structure. Starting aft (or forward) in the ship, the first bilge block station is set up. With battens and rules, the deadrise at the point where the bilge blocks will be set up is determined. The horizontal distance out and the vertical distance up for each assumed bilge block station is measured. The curve of the bilge caps will usually follow a 3-foot or 4-foot water line, or the curve may follow a side stringer.

4. The weight of the vessel is determined through the formula on the "Pre-docking Check". (See Appendix, Item 1.)

5. Before docking a ship, a study is made of its weight distribution, the amount and direction of its trim and the amount and direction of its list. The stern of the ship, its propellers, rudders, etc., should be accessible for work, while the bow of the vessel, unless damaged, can readily be made to overhang the dock and even extend beyond the end of the outrigger. The docking plan is studied carefully in all respects, especially in regard to projections which may interfere with the landing of the ship on the blocks. Blocks in the way of projections are removed, as noted in the docking plan, to provide ample clearance.

In general, the longitudinal center of gravity of a long ship is placed near the mid-length of the dock. This will produce the least trim in the dock. Short ships are placed on one end of

the dock rather than near the middle. This allows enough docking space for the docking of another ship. Placing the ship near the end of the dock also provides accessibility from the outriggers to the rudders and propellers.

6. When a ship is to be drydocked, the Dockmaster inquires into the draft and general condition of the ship. Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for docking. Shortly before docking, the ship advises the Dockmaster that the ship has been brought to and will be maintained at the conditions agreed upon. Any exceptions are specifically noted. The Dockmaster is prepared to make the necessary adjustments on account of list or trim by properly distributing weights on the ship or by listing or trimming the dock. Drafts of the ship forward and aft are always checked by the Dockmaster prior to docking and the afloat waterline is marked with chalk at the bow and stern, port and starboard. These chalk marks are visible to the Dockmaster from the wingwalls.

After deciding the location of the ship in the dock, the following steps are taken:

- a. Prior to docking, a pumping plan is prepared for the guidance of the Dockmaster. This plan shows, at various stages of the docking, how much water will be left in each ballast compartment in order to reduce to a minimum the strains on both ship and dock. The pumping plan is prepared from the ship weight diagram, the draft, trim and list information obtained from the ship and from displacement tables.
- b. From the docking plan, the location, height and type of blocks necessary to dock the ship are determined. The bow and stern positions of the ship are accurately laid out and marked on the top of both wingwalls and on the keel blocks. All fore and aft measurements are made from these marks.

At the after end of the ship, center line keel blocks are left out abaft of the last point in the keel where a load is to be carried, otherwise a vessel entering the dock with a trim by the stern might land on a rudder skeg or other relatively frail part of the structure before landing on the keel proper.

Keel blocks are lined up to match the keel of the ship and the timber pieces in each block are securely fastened to each other.

The number and location of bilge blocks are determined from the docking plan. The bilge block setting is determined from the cross-sections of the ship. The distance from the center line of the ship to each bilge block, and the required vertical height of the bilge block above the bottom of the keel are established. The bilge blocks are then built up to their proper vertical height, and are sloped to the contour of the ship's bottom.

B. Differential Pumping

The contained water in each ballast compartment is adjusted to the weight of the ship resting on the blocks over that particular compartment, thereby achieving as close a balance of forces as possible. This will reduce the bending and shearing stresses to a minimum.

When blocks are set in position for docking, the Dockmaster checks his deflection gage readings to see that the dock has no deflection and is in an unstressed condition. The Dockmaster checks the alignment of the permanent keel blocking. When no deflection is in the dry dock, the permanent blocking should be in perfect alignment. Before any flooding or pumping operations are started, the telescopes and targets are checked to be certain the original settings have not been disturbed.

1. During docking operations, a trained operator is stationed at each transit platform. His readings are transmitted to the Dockmaster, keeping him informed as to the condition of the dock. Even with the most careful operation of pumps and flooding valves, the dock will become deflected.

2. The Dockmaster strives to keep dock deflection to a minimum. The Dockmaster has full and complete control of the deflection of the dock. By slow and deliberate operation he can correct any condition tending to introduce stresses or bending moments into the dock structure. By pumping a pontoon which is low, or flooding a pontoon which is high, he can eliminate any deflection in the dock.

3. If, as a vessel is being landed on the blocks, a sudden downward deflection or change of deflection is noted in the dock in a certain area, which cannot be accounted for by the pumping, the Dockmaster will immediately stop all operation. Investigations will be made immediately to determine whether any misplaced blocks, projection of the ship's bottom or irregularity of the bottom plating have caused the dock to become deflected.

4. In case of power failure, fire or other casualty. all valves are closed unless instructed otherwise by the Dockmaster.

C. Dry Dock Operation

1. The Control House is located at the head of the dock on a cement pier supported by sheet pile. From this station, the ten pumps are started and stopped by an electrician under the Dockmaster's direction. Pumps can be started from the towers with start and stop buttons if necessary. Ampere meter gauges are only in the Control House. These are used as an indication of pump motor loading, showing when pumps are actually pumping, or if a pump should lose suction.

With the equipment provided, it is possible for the Dockmaster in the Control House to start and stop any one of ten dewatering pump motors at any time. The ampere meters indicate that the pump is primed and pumping. If the ampere meters show that a pump is not pumping, a priming valve is opened so that the pump will pick up suction.

2. All valves are operated manually under the Dockmaster's instructions while flooding and dewatering the dry dock. This is a five-pontoon dock with 95 flooding, suction, discharge, priming and crossover valves.

3. Water level gauges are on the pontoons and are watched visually. Dry dock draft is also watched visually by the Dockmaster. As this is a free-floating sectional dry dock, similar to Navy Design YFD-23, incorrect pumping can be determined visually by section-to-section differentials. This is constantly monitored by the Dockmaster during docking and undocking operations. On completion of pumping, the water level gauges on each pontoon are read and recorded. From this time until undocking, they are constantly monitored to insure that no flooding of compartments occurs.

4. The main control panel for the dock loud speaker intercommunication system is located in the Control House. By means of a microphone and receiver handset, and two loud speakers installed in the Control House, communication is provided to all stations on the dock.

5. An indicating light is located on each pontoon showing when the pump is running. These lights are connected in parallel and are clearly visible from any position along the side wall.

D. Docking of Ship

The first step is the flooding of the dock to a draft over blocks required for the ship. If the ship is on an even keel, with no trim or list, the dock is flooded until the draft over the keel blocks is equal to the draft of the ship plus a minimum clearance of one foot. If the ship has a trim, the dock must be adjusted to accommodate it.

In lifting the ship, there is a reduction in the dock stability as the ship's bottom comes out of the water. Any list or trim the dock may have been given in picking up the ship should be entirely out at this point and the dock should be on an even keel. To maintain dock stability, the dock should be without list at the time the pontoon deck goes under, and the pumping is kept under careful supervision.

E. Docking a Listed Ship

Before docking a listed ship, the ship's officers are requested to correct the list and get the ship on an even keel. If the list cannot be eliminated, it is reduced to the smallest possible angle. If the incoming ship has a list to port (or to starboard), the dock must be listed by the same amount to square up with the ship. This is accomplished by adjusting the amount of water in the wing wall compartments.

F. Docking a Damaged Ship

Extra precautions are taken when docking a damaged ship. Ships with extensive underwater damage result in flooded compartments, hogged or sagged sections of keel, and ragged underwater openings and other irregularities and obstructions.

1. When underwater compartments are flooded and no inside inspection can be made, divers are used to locate and describe the extent of the damage. If necessary, the ship is hauled into the dock temporarily until the damaged area is over the pontoon deck. The dock is then positioned vertically so that the diver has a platform to work on while making his inspection.

Having made as thorough an examination as possible, the extent of the damage is plotted. The blocking set-up is then corrected by building up, cutting down, or omitting blocks, and by using soft cap blocks where conditions are uncertain. The use of shores under unsupported spots is sometimes advisable.

2. When raising a dock with a damaged ship on the blocks, extra precautions are taken while pumping dock ballast compartments.

G. Undocking a Ship

After repairs are completed, the ship is checked to see that all underwater valves and openings are closed. A report to this effect is received from the ship. The Dockmaster then examines all blockings. Loose blocks are dogged to each other and shoring is removed or lashed down. Electric grounds and all other connections between ship and dock are let go. All ship handling lines, fender floats, etc., are in place and made fast.

1. Before flooding, the docking log book is checked so that the dock can be given the same trim and list that it had in picking up the vessel. In case of a severe damage job, the trim of the ship at undocking is estimated and the dock handled accordingly.

2. The deflection system is utilized to adjust the contained water levels in each ballast compartment in order to prevent strain on ship and dock.

Before flotation drafts have been reached, flooding is ceased and inquiry is made of the ship as to the watertightness of its underwater body.

Before the bow (or stern) of the ship reaches a draft at which flotation can be expected, the flooding valves in the various ballast compartments are successively closed to trim the dock to the desired amount.

No list is applied to the dock until after the bottom of the ship is well submerged and the zone of critical stability of the dock has been passed.

Having reached the desired trim, all valves are opened wide until the highest blocks sink at least one foot below the bottom of the ship. At this time flooding is stopped and the ship is hauled out of the dock. All valves are then closed.

3. When the ship has been hauled out of the dock, the de-watering pumps and pump compartments are started so that the dock will rise uniformly without any undue strain on it. While pumping the dock, any existing trim is eliminated by stopping certain pumps of the various compartments to bring the dock to an even keel.

The dock is raised to the desired pontoon freeboard, and pumping is stopped. All valves are closed and the dock secured.

SECTION 2

CASUALTY CONTROL PROCEDURES

A. Power Failure

The secondary power supply is turned on at the substation.

A communications system is located on the dry dock, consisting of a battery powered megaphone plus battery powered two-way radios for communication from the machinery decks. Dockhands are instructed which valves to close by the Dockmaster. The dry dock will be trimmed manually and all valves will be closed until power is restored.

Battery powered battle lanterns are at each stairway to the machinery deck.

B. Personnel Injuries

A nurse is on duty 24 hours in the first aid station, located at the foot of the dry docks in Building 80. Stretchers are located on the cranes. They can be lowered into ships or onto the deck of the dry dock.

Fire and other casualties are covered in Section 4.

SECTION 3

OPERATIONAL LIMITATIONS

A. Structural Limitations

12,000 tons (subject to verification, Part III of this certification)

B. Mooring Equipment

None

C. Material Handling Limitations

Restricted to 21,500 pounds fork or lift truck loading on four front tires.

D. Stability Limitations

Each vessel is calculated for placement of ship on dry dock, minimizing stress to ship and dry dock. Hydrostatic curves on ship are checked to determine LCG of ship against LCG of dry dock. Then transverse stability is checked using VCG of ship in coordination with designed curves of the dry dock.

SECTION 4

SECURITY PATROL AND FIRE WATCH

A. Security patrol and fire watch are provided by the gate guards and dock attendants. A gate guard and dock attendant are on duty 24 hours per day, seven days per week. For protection from intrusion, a gate guard is stationed at the only open roadway entrance to the fenced Ship Repair Yard. This denies any easy entrance to the yard by persons whose presence is unauthorized, and undoubtedly deters theft and vandalism. A dock attendant patrols the yard, on his assigned shift, to apprehend possible over-the-fence intruders, keep a fire watch, inspect dry docks for malfunctions, or to perform whatever emergency work is needed. A copy of the dock attendant's written instructions, "Rules for Dock Attendants", is enclosed (see Appendix, Item 2). In case of emergencies, the dock attendant notifies the gate guard, who contacts the necessary personnel, i.e., fire department, management, etc., to handle the situation. Dock attendants have been trained to notify and direct emergency assistance to the proper location with a minimum of delay.

B. Fire equipment and systems available for immediate use:

The fire department is located two miles away, with a response time of four minutes. (See Appendix, Item 3 for a description of their facilities.) Also, fire equipment is available for use on vessels with a deactivated fire line system or no fire fighting system (see Appendix, Item 4).

Fire equipment located on Dry Dock #2:

Five 5# CO₂ extinguishers are located in the pump houses on each wingwall.

One 5# CO₂ extinguisher in the Control House.

Two fire hoses on each wingwall.

There is also an additional water supply available.

C. Flooding: Under conditions of high river water, the mooring jaws are lifted to their high elevation.

D. Storms: Constant surveillance of the dry dock is maintained. Additional help is made available if needed.

DRY DOCK #3

PART 1 - SUMMARY

1. Length of the Facility 601' over keel, LOA 661'2"
Breadth 114' clear inside
Maximum depth over Keel Blocks 32', 25' over keel #2
Certified Docking Capacity 24,740 L.T. (subject to verification
Part III of certification)
Designed by Frederick Harris Inc.
Built by Gunderson Bros., Portland, Oregon Year 1962
Designation of the Facility Dry Dock #3

2. Recent overhaul work:

None.

3. Modifications or alterations made since building of facility which modify capacity or dimensions of facility:

Outriggers reinforced for heavier loads, 1965.
Swash bulkhead added #1 pontoon, for pumping shorter ships, 1968.
Spud guides lengthened 10' to eliminate raising and lowering mooring jaws due to fluctuation of river, 1972.

4. Brief history of ships drydocked in facility:

a. Heaviest ship docked in facility:

SS Argyll	8/23 - 8/28/73	LOA - 763'	LT 24,890
	9/8 - 9/16/74		

b. Heaviest ship docked in last three years:

Same.

- c. Other ships drydocked that demonstrate capability of facility:

Maria Rubicon	11/29 - 12/12/74	LOA 557'110"	LT 19,425
Overseas Alaska	01/14 - 01/29/75	LOA 731'	LT 16,000

- d. Ships damaged during drydocking requiring repairs in excess of \$5,000.00.

None.

5. Summary of facility certification.

- a. The maximum docking capacity of this facility based on this certification is 24,740 tons (subject to verification Part III of certification).
- b. Design data provided in Part II of this certification substantiates this value.
- c. The material survey of the facility provided in Part III of this certification confirms that the facility can safely dock a ship of the above weight.

DRY DOCK #3

PART IV

SECTION 1

OPERATING INSTRUCTIONS FOR DOCKING AND UNDOCKING

A. Preparation for Docking

As soon as it is known that a particular ship is to be drydocked, the Dockmaster obtains the ship's "docking plan" if possible, and inquires into the draft and general condition of the ship. If practicable, a visit to the ship is made by the Dockmaster. In the case of a Navy ship, a pre-docking conference is scheduled.

Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for drydocking. If the vessel is damaged, the Dockmaster determines if the ship can be docked in the condition in which it will arrive. He determines if there is damaged metal which should be removed by underwater cutting, and which blocks should be omitted in way of the damaged areas to allow for damaged plating which cannot be removed. At the time of the docking, the Dockmaster checks to see the vessel has arrived in exactly the condition for which he has prepared the dock.

1. The docking plan is required sufficiently in advance of the docking date to allow time for planning and block building. Information required includes length, beam, draft, transverse sections of the ship for setting of bilge blocks, and location of docking keels, if any. It should also point out hull obstructions, such as propellers, sound gear, etc., as well as the location of openings in the ship's hull, below the turn of the bilge, from which blocking must be kept clear.

Docking plans for warships should include a detailed tabulation of the actual shape of the bilge block caps, and also the location of turrets and other heavy weights.

The ship docking plan is corrected in accordance with the findings at each docking. Deviations from the docking plan are made only when considered justified.

2. When no docking plan is available, the Dockmaster improvises a plan using any or all of the following expedients:

- a. It is determined who built the ship and in what year. Plans of similar ships of that year and build are consulted, assuming the deadrise and other characteristics of the ship will follow the same trend.
- b. The ship's interior is inspected to determine if it has a flat or a bar keel. Using a hook or pole, it is determined whether the ship has a bilge keel or rolling chocks, and also the length of these appendages. On a riveted ship, the presence of a bilge keel and its extent is verified on the inside by an examination of the lines of rivets. Offsets for determining the height and location of bilge blocks can often be taken from the interior of the ship, making due allowances for thickness of plating and external projections.
- c. A diver may be sent down to survey the underwater hull of the ship. This is often essential in case of a damaged ship, even when a docking plan is available.

3. With the length, general lines of ship and the bilge block spacing of the dock known, it is determined where the required bilge blocks will land with respect to the ship's structure. Starting aft (or forward) in the ship, the first bilge block station is set up. With battens and rules, the deadrise at the point where the bilge blocks will be set up is determined. The horizontal distance out and the vertical distance up for each assumed bilge block station is measured. The curve of the bilge caps will usually follow a 3-foot or 4-foot water line, or the curve may follow a side stringer.

4. The weight of the vessel is determined through the formula on the "Pre-docking Check". (See Appendix, Item 1.)

5. Before docking a ship, a study is made of its weight distribution, the amount and direction of its trim and the amount and direction of its list. The stern of the ship, its propellers, rudders, etc., should be accessible for work, while the bow of the vessel, unless damaged, can readily be made to overhang the dock and even extend beyond the end of the outrigger. The docking plan is studied carefully in all respects, especially in regard to projections which may interfere with the landing of the ship on the blocks. Blocks in the way of projections are removed, as noted in the docking plan, to provide ample clearance.

In general, the longitudinal center of gravity of a long ship is placed near the mid-length of the dock. This will produce the least trim in the dock. Short ships are placed on one end of

the dock rather than near the middle. This allows enough docking space for the docking of another ship. Placing the ship near the end of the dock also provides accessibility from the outriggers to the rudders and propellers.

6. When a ship is to be drydocked, the Dockmaster inquires into the draft and general condition of the ship. Arrangements are made with the ship's captain to bring the ship to the draft, trim and general condition desired for docking. Shortly before docking, the ship advises the Dockmaster that the ship has been brought to and will be maintained at the conditions agreed upon. Any exceptions are specifically noted. The Dockmaster is prepared to make the necessary adjustments on account of list or trim by properly distributing weights on the ship or by listing or trimming the dock. Drafts of the ship forward and aft are always checked by the Dockmaster prior to docking and the afloat waterline is marked with chalk at the bow and stern, port and starboard. These chalk marks are visible to the Dockmaster from the wingwalls.

After deciding the location of the ship in the dock, the following steps are taken:

- a. Prior to docking, a pumping plan is prepared for the guidance of the Dockmaster. This plan shows, at various stages of the docking, how much water will be left in each ballast compartment in order to reduce to a minimum the strains on both ship and dock. The pumping plan is prepared from the ship weight diagram, the draft, trim and list information obtained from the ship and from displacement tables.
- b. From the docking plan, the location, height and type of blocks necessary to dock the ship are determined. The bow and stern positions of the ship are accurately laid out and marked on the top of both wingwalls and on the keel blocks. All fore and aft measurements are made from these marks.

At the after end of the ship, center line keel blocks are left out abaft of the last point in the keel where a load is to be carried, otherwise a vessel entering the dock with a trim by the stern might land on a rudder skeg or other relatively frail part of the structure before landing on the keel proper.

Keel blocks are lined up to match the keel of the ship and the timber pieces in each block are securely fastened to each other.

The number and location of bilge blocks are determined from the docking plan. The bilge block setting is determined from the cross-sections of the ship. The distance from the center line of the ship to each bilge block, and the required vertical height of the bilge block above the bottom of the keel are established. The bilge blocks are then built up to their proper vertical height, and are sloped to the contour of the ship's bottom.

B. Differential Pumping

The contained water in each ballast compartment is adjusted to the weight of the ship resting on the blocks over that particular compartment, thereby achieving as close a balance of forces as possible. This will reduce the bending and shearing stresses to a minimum.

When blocks are set in position for docking, the Dockmaster checks his deflection gage readings to see that the dock has no deflection and is in an unstressed condition. The Dockmaster checks the alignment of the permanent keel blocking. When no deflection is in the dry dock, the permanent blocking should be in perfect alignment. Before any flooding or pumping operations are started, the telescopes and targets are checked to be certain the original settings have not been disturbed.

1. During docking operations, a trained operator is stationed at each transit platform. His readings are transmitted to the Dockmaster, keeping him informed as to the condition of the dock. Even with the most careful operation of pumps and flooding valves, the dock will become deflected.

2. The Dockmaster strives to keep dock deflection to a minimum. The Dockmaster has full and complete control of the deflection of the dock. By slow and deliberate operation he can correct any condition tending to introduce stresses or bending moments into the dock structure. By pumping a pontoon which is low, or flooding a pontoon which is high, he can eliminate any deflection in the dock.

3. If, as a vessel is being landed on the blocks, a sudden downward deflection or change of deflection is noted in the dock in a certain area, which cannot be accounted for by the pumping, the Dockmaster will immediately stop all operation. Investigations will be made immediately to determine whether any misplaced blocks, projection of the ship's bottom or irregularity of the bottom plating have caused the dock to become deflected.

4. In case of power failure, fire or other casualty. all valves are closed unless instructed otherwise by the Dockmaster.

C. Pumping and Flooding System

1. The dock is dewatered by means of twenty-four dewatering pumps. Each dewatering pump can be controlled remotely from the Control House on the wingwall, or locally by controls at each pump motor. Starters for the pump motors are located in the motor control centers.

2. The dock is flooded by means of twenty-four 20-inch gate valves.

- a. An air receiver tank, connected to the yard air system and to an air compressor is provided on each side of the dock to supply control air to the pneumatic cylinders. Air is stored in the receiver at 125 psig. The air is then supplied to the control air system through pressure reducing valves which regulate the air to 100 psig.

Air to the pneumatic cylinders is controlled by solenoid valves. These solenoid valves are remotely operated from the Control House on the wingwall and may be manually tripped locally.

- b. Speed control valves are provided on the upper and lower ends of the cylinders to regulate the rate of opening and closing of the flooding valves.
- c. Pressure reducing valves are provided on the upper end of the cylinders to limit closing air pressure to 80 psig. Opening air pressure enters the lower end of the cylinder at 100 psig.
- d. In operation, when a particular selector switch in the Control House is set to the close position, the solenoid valves on that particular flooding valve are actuated; the solenoid on the top of the cylinder positions to supply air to the top of the cylinder, whereas the solenoid on the bottom end of the cylinder positions to vent air from the underside of the cylinder allowing the piston to move down, closing the flooding valve. The air to the top of the cylinder passes first through a pressure reducing valve, reducing the air to 80 psig, then through the solenoid valve and finally through the speed control valve and into the cylinder. The air from the bottom of the cylinder passes out through the lower speed control valve, where its rate of flow is regulated to control the closing speed of the flooding valve, and is then vented through the lower solenoid valve.

When the selector switch is set to the open position, the above operation is reversed, allowing the flooding valve to open.

3. All dewatering pumps and flooding valves are remote controlled from a bench control board located in the Control House.

The bench control board is arranged from left to right as follows:

Master Control Section
Pontoon No. 1 through Pontoon No. 6

- a. The master control section contains the master control switch, the pump control switch and the control air low pressure alarm for port and starboard.
- b. The pontoon sections contain the "start" - "stop" push buttons and one ammeter for each pump, and the "open" - "close" switch including indicating lights for each flooding valve.
- c. The master control switch has three positions, namely "off", "flooding" and "pumping". With the switch in the "off" position, the whole control board is inactivated.

In the "flooding" position, the flooding valves can be opened by turning the valve control switch to the "open" position, or closed by turning the switch to the "close" position. To simplify the operation, the operator can preset the valve switches to the "open" position with the master switch in "off" position and open all selected valves simultaneously by turning the master switch to the "flooding" position. Returning the master switch to the "off" position will close all open valves. With the master switch in the "pumping" position, the flooding valves can also be actuated by turning individual valve switches to the desired position.

For each valve there is a red and green indicating light provided to indicate the position of each valve. These lights are controlled by limit switches actuated by the valve extension stem. The lights can be tested by pressing down the cap.

- d. The pump control switch has two positions, namely "on" and "stop". With the master control switch in the "pumping" position and the pump control switch in the "on" position, each pump can be started by pressing its own "start" button. By turning the pump control switch to the "stop" position, all pumps operating are stopped simultaneously.

D. Water Level Indicating System

A water level indicating system is provided for measuring the level of contained water and dock drafts. Twelve indicators are provided to measure height of contained water, one for each pontoon ballast compartment. Four indicators are provided for draft indication, one each for the bow, port and starboard, and the stern, port and starboard.

All indicators are calibrated in feet with graduations of three inches. The ballast indicators have one scale to show the height of contained water over the keel of the dock. The draft indicators have two scales, one to read the dock draft and the other to read height of water over keel blocks. All indicators, control valves and air bubblers are mounted on the rear panel of the bench control board located in the Control House.

E. Docking of Ship

The first step is the flooding of the dock to a draft over blocks required for the ship. If the ship is on an even keel, with no trim or list, the dock is flooded until the draft over the keel blocks is equal to the draft of the ship plus a minimum clearance of one foot. If the ship has a trim, the dock must be adjusted to accommodate it.

1. If trim is excessive, the Dockmaster insists that trim be reduced by flooding the ship's tanks. If the ship is trimmed by the stern (or by the bow), it is desirable to trim the dock by the same amount to parallel the ship. This is accomplished by a graduated simultaneous flooding of all the ballast compartments.

2. Before flooding the dock, all hatches, valves, vents and other openings not directly required for the flooding operation are closed. All openings in the safety deck and the buoyancy chambers are securely closed.

In lifting the ship, there is a reduction in the dock stability as the ship's bottom comes out of the water. Any list or trim the dock may have been given in picking up the ship should be entirely out at this point and the dock should be on an even keel. To maintain dock stability, the dock should be without list at the time the pontoon deck goes under, and the pumping is kept under careful supervision.

F. Docking a Listed Ship

Before docking a listed ship, the ship's officers are requested to correct the list and get the ship on an even keel. If the list cannot be eliminated, it is reduced to the smallest possible angle. If the incoming ship has a list to port (or to starboard), the dock must be listed by the same amount to square up with the ship. This is accomplished by adjusting the amount of water in the wing wall compartments.

G. Docking a Damaged Ship

Extra precautions are taken when docking a damaged ship. Ships with extensive underwater damage result in flooded compartments, hogged or sagged sections of keel, and ragged underwater openings and other irregularities and obstructions.

1. When underwater compartments are flooded and no inside inspection can be made, divers are used to locate and describe the extent of the damage. If necessary, the ship is hauled into the dock temporarily until the damaged area is over the pontoon deck. The dock is then positioned vertically so that the diver has a platform to work on while making his inspection.

Having made as thorough an examination as possible, the extent of the damage is plotted. The blocking set-up is then corrected by building up, cutting down or omitting blocks, and by using soft cap blocks where conditions are uncertain. The use of shores under unsupported spots is sometimes advisable.

2. When raising a dock with a damaged ship on the blocks, extra precautions are taken while pumping dock ballast compartments.

H. Undocking a Ship

After repairs are completed, the ship is checked to see that all underwater valves and openings are closed. A report to this effect is received from the ship. The Dockmaster then examines all blockings. Loose blocks are dogged to each other and shoring is removed or lashed down. Electric grounds and all other connections between ship and dock are let go. All ship handling lines, fender floats, etc., are in place and made fast.

1. Before flooding, the docking log book is checked so that the dock can be given the same trim and list that it had in picking up the vessel. In case of a severe damage job, the trim of the ship at undocking is estimated and the dock handled accordingly.

2. The deflection system is utilized to adjust the contained water levels in each ballast compartment in order to prevent strain on ship and dock.

Before floatation drafts have been reached, flooding is ceased and inquiry is made of the ship as to the watertightness of its underwater body.

Before the bow (or stern) of the ship reaches a draft at which floatation can be expected, the flooding valves in the various ballast compartments are successively closed to trim the dock to the desired amount.

No list is applied to the dock until after the bottom of the ship is well submerged and the zone of critical stability of the dock has been passed.

Having reached the desired trim, all valves are opened wide until the highest blocks sink at least one foot below the bottom of the ship. At this time, flooding is stopped and the ship is hauled out of the dock. All valves are then closed.

3. When the ship has been hauled out of the dock, the de-watering pumps and pump compartments are started so that the dock will rise uniformly without any undue strain on it. While pumping the dock, any existing trim is eliminated by stopping certain pumps of the various compartments to bring the dock to an even keel.

The dock is raised to the desired pontoon freeboard, and pumping is stopped. All valves are closed and the dock made secure.

SECTION 2

CASUALTY CONTROL PROCEDURES

A. Power Failure

The secondary power system is turned on at the substation. A communications system is located on the dry dock consisting of a battery-powered megaphone plus battery-powered two-way radios for communication from the machinery decks. Battery-powered battle lanterns are at each stairway to the machinery deck.

The flooding valves close automatically when loss of power occurs.

B. Air Failure

Two nitrogen cylinders with regulators and hoses are provided on each wingwall to facilitate emergency closing of the flooding valves in event of air failure. In the piping to the top of each cylinder, a valved connection is provided with a quick connecting hose coupling to receive the nitrogen hose.

To emergency close a flooding valve, the hose from the nearest nitrogen cylinder should be coupled to the desired emergency coupling and the following steps taken:

1. Close 3/4" diaphragm valve between the top of the air cylinder and the top speed control valve.
2. Open 3/4" diaphragm valve or the emergency connection just above the hose coupling.
3. Trip lower solenoid valve to vent position.
4. Open valve on top of the nitrogen cylinder to supply nitrogen to the air cylinder and close the flooding valve.

C. Personnel Injuries

A nurse is on duty 24 hours in the first aid station, located at the foot of the dry docks in Building 80. Stretchers are located on the cranes. They can be lowered into ships or onto the deck on the dry dock.

D. Fire and other casualties are covered in Section 4.

SECTION 3

OPERATIONAL LIMITATIONS

A. Structural Limitations

24,740 tons (subject to verification in Part III of certification).

B. Mooring Equipment Limitations

None

C. Material Handling Limitations

Restricted to 21,500 lb. fork or lift truck loading on four front tires.

Pontoon deck over buoyancy chamber	2,250 lbs./sq. ft.
Pontoon deck over ballast compartments	1,630 lbs./sq. ft.
Bar gratings between pontoons	3,150 lbs./sq. ft.

D. Stability Limitations

Each vessel is calculated for placement of ship on dry dock, minimizing stress to ship and dock. Hydrostatic curves on ship are checked to determine LCG of ship against LCG of dry dock. Then transverse stability is checked using VCG of ship in coordination with designed curves of the dry dock.

SECTION 4

SECURITY PATROL AND FIRE WATCH

A. Security patrol and fire watch are provided by the gate guards and dock attendants. A gate guard and dock attendant are on duty 24 hours, 7 days a week. For protection from intrusion, a gate guard is stationed at the only open roadway entrance to the fenced Ship Repair Yard. This denies any easy entrance to the yard by persons whose presence is unauthorized, and undoubtedly deters theft and vandalism. A dock attendant patrols the yard, on his assigned shift, to apprehend possible over-the-fence intruders, keep a fire watch, inspect dry docks for malfunctions, or to perform whatever emergency work is needed. A copy of the dock attendant's written instructions "Rules for Dock Attendants" is enclosed (see Appendix, Item 2). In case of emergencies, the dock attendant notifies the gate guard who contacts the necessary personnel, i.e., fire department, management, etc., to handle the situation. Dock attendants have been trained to notify and direct emergency assistance to the proper location with a minimum of delay.

B. Fire equipment and systems available for immediate use:

The fire department is located two miles away, with a response time of four minutes. See Appendix, Item 3 for a description of their facilities. Also, fire equipment is available for use on vessels with a deactivated fire line system or no fire fighting system (see Appendix, Item 4).

Fire equipment located on Dry Dock #3:

Six 20# CO₂ extinguishers on either side of machinery deck.
6# CO₂ extinguisher in control house.
Three fire hoses on each wingwall.

There is also an additional water supply available.

C. Flooding

Under conditions of high river water, the mooring jaws are lifted to their high elevation.

D. Storms

Constant surveillance of the dry dock is maintained. Additional help is made available if needed.

SECTION 5

CHECK-OFF LISTS AND OPERATING LOGS

These check-off lists and operating logs apply to all dry docks.

An operating log is kept in the control house of each dry dock to record start and shutdown times of pumps used during pumping or de-ballasting operations, and also pumps used to compensate for shifting of weight in vessels while on dry dock.

All hull openings are the responsibility of the Ship Repair Yard contractor in conjunction with the vessel's crew. It is understood that at no time will the shell openings regarding sea valves be left unattended over any period of time, unless permission is granted from the vessel's crew or Sup Ship. Prior to undocking, the floatability of the vessel regarding all openings is verified by the Ship Repair Yard contractor.

DRYDOCK CHECK-OFF LIST

SHIP			DOCKING #	
DOCK #		Date: Dock Undock		Time: Dock Undock
Draft	Fwd.	Aft.	List	
Docking				
Undocking				

DOCKING CHECK-OFF LIST

Item	Time	Initial
Drydock connections and services at drydock		
Ship ballasted for drydocking		
Underwater retract. equip. housed		
All items satisfactory to move ship to drydock		
Draft marks checked by Dockmaster		
Ship released to move to drydock		
Ship in drydock and on blocks		
Dockside services connected		
Drydock released to pump down dry		
Drydock pumped dry		

Remarks:

PUMPING LOG WHEN DOCK OCCUPIED

DATE _____

PUMPING STARTED _____ PUMPING STOPPED _____

PUMPED _____

LEAKAGE _____

BALLASTING _____

* * * * *

PERSONNEL PRESENT:

DOCKMASTER

OPERATOR

DOCK ATTEND.

UNDocking CHECK-OFF LIST

SHIP _____ TYPE _____

CONTRACTOR _____ DATE _____

	Dockmaster	Contractor	Machinist	Boilermaker
Sea chest				
Propeller & shaft drawn				
Hull repair				

	Time	Initial
All items satisfactory to move ship out of dock		
Ship is released for moving out of dock		

Remarks:

(5.1.5a)



Port of Portland

DOCK FOREMAN'S VESSEL REPORT

Order No. _____

Vessel				LOA		LPP		Docking No																																	
Contractor				Beam		YFD-69 <input type="checkbox"/> No 2 <input type="checkbox"/> No 3 <input type="checkbox"/>																																			
Owner/Agent				Displ. Tons		Gross Tons		L. Tons S. Tons																																	
Draft Fwd.		Aft		Arrived From		Departed For		Pontoons Used																																	
	Date			Time			Weather																																		
Vessel Ordered Dry For																																									
Entered Dock																																									
Bilge Blocks Hauled																																									
Vessel Dry								IDLE DAYS -																																	
Vessel Ready To Undock								<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> <tr> <td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> </tr> <tr> <td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> </tr> <tr> <td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td> </tr> </table>		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
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PSY500006364

SECTION 6

DOCKMASTER'S CRITERIA

Following are personal resumes and Dockmaster's criteria for Carl F. Propp and A. Keith Murdock. Also included is a list of Navy vessels drydocked at Swan Island Ship Repair Yard during the last three years.

May 21, 1975

To whom it may concern;

The person responsible for our facilities and Drydocks at the Swan Island Ship Repair Yard is Carl F. Propp. Following is a brief resume of his experience;

(1935-1940) - Apprentice dock hand, shipwright and machinist at Morris Basin Dry Docks, Jersey City, New Jersey.

(1940-1952) - Assistant dockmaster, Todd Shipyards, Hoboken, New Jersey. In this period sent to Charleston, S.C. as a dockmaster consultant.

(1952-1954) - Dockmaster and General Foreman, Todd Shipyards, Houston Division, Houston, Texas.

(1954-1966) - Dockmaster and Yard Superintendent for Puget Sound Bridge & Dredge Co., Seattle, Washington. Later in this period served in same capacities for Lockheed Shipyard, Seattle, Washington.

(1966-1968) - Assistant General Superintendent and Dockmaster, Todd Shipyards, New Orleans Division, New Orleans, Louisiana. Also spent short time as a Marine Surveyor (Hull) for U.S. Navy, New Orleans, Louisiana.

(1968-Present time) - Manager-Dockmaster, The Port of Portland, Swan Island Ship Repair Yard, Portland, Oregon.



Lloyd Anderson, Executive Director
Port of Portland

DOCKMASTER'S CRITERIA

CARL F. PROPP

A. Formal Education

1. Formal schooling in the mathematics of stability calculations has been a continual process to meet job requirements. This instruction has been obtained through high school, Seattle Community College, Mt. Hood Community College, and a private Port of Portland math tutor. Also, he has attended a drydocking school run by Paul Crandall of Boston. He has utilized these mathematics in his work as Dockmaster for the past 30 years.
2. He has had formal training in management within the past 20 years. He has also had much on-the-job experience serving as Dockmaster, project manager, and general superintendent in various shipyards (see resume).

B. Apprentice Training/Supervised Experience

1. Served as dockmaster apprentice from 1940 - 42 at Todd Shipyards, Hoboken, N.J.

C. Assistant Dockmaster/Dockmaster Experience

1. Served as Assistant Dockmaster from 1942 -1952 at Todd Shipyards Hoboken, N.J. Served as Dockmaster at Todd Shipyards, Houston, Texas; Puget Sound Bridge & Dredge, Seattle; Todd Shipyards, New Orleans; and Port of Portland, Portland, Ore. from 1952 - present.
2. All types of vessels from tugs and river craft to large tankers and cargo ships with a maximum displacement of 27,000 tons, have been drydocked at Swan Island Ship Repair Yard. See attached list of Navy vessels drydocked in the last three years.

D. Additional Capabilities

1. Have capabilities calculated for moment of forces reacting on floating drydock in regard to weight superimposed upon it. Have knowledge of maximum block support criteria.
2. Has knowledge of lofting as related to lines, drawing, and tables of offsets.

3. Regarding tug and tow experience, operated as docking pilot for Todd Shipyards, Houston, Texas, where the Dockmaster took responsibility from the canal pilot and proceeded in moving the ships unto the drydock prior to drydocking. Had the same experience at Todd Shipyards, New Orleans, Louisiana.
4. Has considerable experience with ship board machinery through acting as Shipyard Superintendent. Has on-the-job experience with propulsion auxillary machinery and knows the various service requirements needed when ships are drydocked or put on inactive status.

E. Formal Designation

I designate Carl F. Propp as the Manager-Dockmaster of Swan Island Ship Repair Yard, Portland, Oregon.

A handwritten signature in cursive script, appearing to read "Lloyd Anderson".

Lloyd Anderson, Executive Director
Port of Portland

May 21, 1975

To whom it may concern;

The present dockmaster at the Swan Island Ship Repair Yard is
A. Keith Murdock. Following is a brief resume of his experience;

(1944) - Graduated from Roosevelt High School, Portland, Oregon.

(1944-1946) - Served in U.S. Navy as gunner's mate.

(1946-1958) - Dock hand for the Port of Portland, Swan Island Ship
Repair Yard, Portland, Oregon.

(1958-1968) - Relief dock foreman, Swan Island Ship Repair Yard,
Portland, Oregon.

(1968-1973) - Assistant Dockmaster, Swan Island Ship Repair Yard,
Portland, Oregon.

(1973-Present time) - Dockmaster, Swan Island Ship Repair Yard,
Portland, Oregon.

A handwritten signature in cursive script, appearing to read "Lloyd Anderson".

Lloyd Anderson, Executive Director
Port of Portland

DOCKMASTER'S CRITERIA

A. KEITH MURDOCK

A. Formal Education

1. Has received formal schooling in mathematics within the last five years from a private POP math tutor and through instruction from the SRY Manager.
2. In the past three years has received management training through a Bell Systems course.

B. Apprentice Training/Supervised Experience

1. Served as Dockmaster Apprentice for the Port of Portland from 1958 - 1968.

C. Assistant Dockmaster/Dockmaster Experience

1. Served as Assistant Dockmaster for the Port of Portland from 1968 - 1973. Has been Dockmaster since 1973.
2. All types of vessels, from tugs and river craft to large tankers and cargo ships with a maximum displacement of 27,000 tons, have been drydocked at Swan Island Ship Repair Yard. See attached list of Navy vessels drydocked in the last three years.

D. Additional Capabilities

1. Has expertise in making general calculations regarding blocking, tension, overhang and general weight stresses.
2. Has knowledge of lofting as related to lines, drawing, and table of offsets.
3. Received experience in ship handling while in the U.S. Navy, and through shifting vessels in the shipyard.
4. Has some Navy experience regarding shipboard engineering. This makes it possible to keep in phase with ship services when ships are drydocked or placed in inactive status.

E. Formal Designation

I designate A. Keith Murdock as the Dockmaster of Swan Island
Ship Repair Yard, Portland, Oregon.

A handwritten signature in cursive script, appearing to read "Lloyd Anderson".

Lloyd Anderson, Executive Director
Port of Portland

U.S. NAVY VESSELS DRYDOCKED AT
SWAN ISLAND SHIP REPAIR YARD
1972 - 1975

<u>VESSEL</u>	<u>DATE</u>	<u>CONTRACTOR</u>
USNS Gen. Hoyt S. Vandenberg	2/3/72 - 2/20/72	Albina
USS DD 703	2/25/72 - 3/6/72	Northwest
USNS Schuykill	3/24/72 - 3/25/72	Northwest
USS DE Meyerkord	5/15/72 - 6/12/72	Northwest
USS DD Lind	6/7/72 - 6/12/72	Northwest
USNS Mission Santa Ynez	3/16/73 - 3/21/73	Northwest
USS DD 788	5/27/73 - 6/13/73	Albina
USS DD Lind	6/29/73 - 6/29/73	WISCO
USS Samuel Gompers	9/8/73 - 11/4/73	Northwest
USS Point Defiance	9/6/74 - 9/26/74	WISCO
USS Sperry	9/28/74 - 10/11/74	Northwest
USS Point Defiance	1/2/75 - 1/25/75	WISCO
USS Hassayampa	4/26/75 - 5/22/75	Northwest

APPENDIX

- Item 1 - Pre-docking Check
- Item 2 - Rules for Dock Attendants
- Item 3 - Municipal Fire Protection
- Item 4 - Vessel Fire Protection

ITEM 1

DATE _____ 19____

PRE-DOCKING CHECKNAME OF VESSELTYPEDRYDOCK NUMBER_____
1. 2. 3.

$$\text{LBP} \times \text{M.D.} \times \text{B} \times .6 = \triangle \text{ MIN.}$$

REMARKS: _____

$$\frac{\text{---X---X---X}}{36} =$$

$$\frac{\text{LBP} \times \text{M.D.} \times \text{B} \times 1.0}{36} = \triangle \text{ MAX.}$$

REMARKS: _____

$$\frac{\text{---X---X---X}}{36} =$$

$$\frac{\text{LBP} \times \text{M.D.} \times \text{B} \times .80}{36} = \triangle \text{ MEAN}$$

$$\frac{\text{---X---X---X}}{36} =$$

(=====)

WHEN MEAN \triangle IS WITHIN 20% OF
LIFTING CAPACITY, CALCULATE \triangle
BY USING VESSELS CURVES OF FORM.

DRYDOCK #1: 14,500

DRYDOCK #2: 12,000

DRYDOCK #3: 27,000

PSY500006374

ITEM 2

RULES FOR DOCK ATTENDANTS

The dock attendant is governed by the following rules. However, these rules are of a guidance nature. All situations cannot be stated in words. Often you must think for yourself and make your own decisions. If you are unsure of how to handle a situation, or it seems beyond your control, call those people who can help you with advice and instruction.

1. Dry Docks

A watch shall be kept on all dry docks during the dock attendant's tour of duty. Under normal conditions, there will be a minimum watch of once per hour while a vessel is on dry dock. Check for any abnormal condition, such as list or drag. See that gangways and stairways are free from obstructions, proper lighting is in effect, and gas and oxygen lines are free from logs and debris. Report any unsafe conditions for drydock operation to the Dockmaster. Unsafe contractor personnel working conditions should be reported to their foreman, superintendent or safety man. If a vessel has been drydocked, watch for any change in position of the dry dock from when it was pumped dry. When a vessel is on dry dock, a manual measurement of each corner of the dry dock should be made once a shift and noted on the Watchman's Report. The contractor will notify the Dockmaster if tanks are to be drained or flooded, or if ballast is to be shifted. He will then inform the dock attendant, who should keep in touch with the job coordinator when the shift or change occurs. If you feel an unsafe condition exists which you are unable to remedy, immediately contact your night supervisor, if you are working the same shift, or the Dockmaster or Asst. Dockmaster. If unable to contact them, notify the yard manager.

2. Dry Dock #2

Dry dock #2 will require a special effort on the part of the dock attendant. When a vessel is drydocked, the attendant will take whatever time is required to maintain the dock in a safe condition. Do not hesitate to ask the Dockmaster or Asst. Dockmaster for help if you feel insecure in handling any vessel on dry dock. They will show you the proper procedure or have someone assist you in maintaining the dock. #5 pontoon needs pumping without a vessel being on dock. Normally once a shift is sufficient.

3. Rounds

You will not be expected to punch the clock a set amount of rounds during your shift. You will, however, be expected to function as a security watch throughout the yard. Be alert; investigate anything that appears abnormal. Time is an important element in your job. Do not waste it, but take enough time so that you know the yard is secure when you finish a round. There will be circumstances when a vehicle will be more practical than walking, but DO NOT RELY ON A VEHICLE. Make most of your rounds on foot.

4. Clock

As you make a round, punch the clock at the different stations throughout the yard. The clock is your proof and the Port of Portland's insurance that you have been performing your job. In the event of an accident, fire or disaster, it may prove a valuable time factor in the investigation. Each Friday, the clock will be set and wound. If it fails to function properly, inform your supervisor.

5. Gate Relief

It will be part of your duties to give the gate guard two fifteen minute relief periods a shift. Work out with the guard the most practical time for these periods. Also signals on the air horn shall be used as follows:

One short blast - "Drop by guard shack on next round."
Two short blasts - "Call by yard phone at first opportunity."
Three short blasts - "Emergency, come immediately!"

Attempt to pass by the guard shack on each round so the guard keeps informed of your well being.

6. Compressor Room

The dock attendant has duties to perform in the compressor room on weekends and when a night shift compressor man is not on duty. The tape on the automatic control unit has to be signed every two hours. Also punch the record button on any operating boiler in the boiler room every two hours. Fill the oil reservoir on all operating compressors and the river pump. Empty any overflow buckets when needed. Fill out the record sheet for air and steam usage. If an air or steam line is hooked up to a vessel, record it even though it may not be in use. Notify the guard to call a machinist in case of breakdowns.

7. Log Book

Record in the log book the date, time and location of any vessel being moved to or from the dock, pier, or wharves in the Ship Repair Yard.

8. Work Record

The Business Supervisor needs an accurate account of the actual time contractors are working off the deck of the dry dock. Dock attendants will make a special effort to record this time on their Watchman Report. When you see a job is nearing completion, make sure you note the stop work time.

9. Lighting

Turning on the yard lights will be the responsibility of the dock attendant. You will receive assistance in the dark winter months from the day shift utilitymen. Give first and special attention to dry dock lighting when a vessel has been drydocked. Record on your Watchman Report any lights that need replacing or any situations where extra lighting is needed.

10. Flag

Raise and lower the flag at the appropriate times. See that it is stored correctly. Let your supervisor know when it needs replacing.

11. Ice and Wind

When icing conditions exist, salt down any gangway, walkway or path used by pedestrians. Be on the alert for broken pipes or other damage. If an excessive wind condition develops that the yard is not prepared for, contact the Yard Superintendent and Dockmaster. Move what equipment you can to a safe area and place extra stops under other equipment that may be moved by the wind.

12. Fire Doors

Near the beginning of swing shift, the dock attendant will check under the pier to see that the fire doors are closed. Graveyard shift will check in the vicinity of any work in progress.

13. Fire

In the event of fire, evaluate the extent and condition. If you think the City Fire Dept. may be needed, pull the fire alarm or call the main gate to sound the alarm, whichever is more expedient. Do what you can to control the fire. If other help is at the scene and the fire is in the area of Berths 4 or 5, open the upper gate and stand by to direct the fire equipment.

14. Locks

Most of the Port's facilities in the yard are locked, such as buildings, sheds, gates, doorways, control houses, wheels, hatch covers, bull pens, etc. As you pass by on your rounds, see if the locks are in place and locked. Pay particular attention to the Machine and Carpenter Shops, Compressor Room and garage. If a lock is missing or unlocked, report it on your Watchman Report after relocking. Spare locks are available.

15. Serious Incident

If an incident of a serious nature occurs, report what facts you know to the gate guard at once so he may notify top management personnel. Make out a special report, giving all details, and turn it in with your Watchman Report.

16. Shift Exchange

Permission to exchange shifts must be obtained from your supervisor. The actual date and time worked will be turned in on your time card. No overtime rates will be paid for such an exchange.

17. Grievance

The dock attendants shall follow the same procedure for filing a grievance as is stated in their union contract for other members of their union.

ITEM 3

MUNICIPAL FIRE PROTECTION PROVIDED TO
SWAN ISLAND SHIP REPAIR YARD
PORTLAND, OREGON

The nearest Municipal Fire Station is located 2 miles away on an uncongested thoroughfare. Response time is 4 minutes.

The following equipment and supervision is radio dispatched in answer to the first call.

- 1 Assistant Fire Chief
- 1 Battalion Chief

- 4 Pumper, Hose Wagon Engines
- 1 Aerial Ladder Truck
- 1 Chemical Truck
- 1 Squad Truck
- 2 Rescue Units
- 2 Fire Boats

The following additional equipment and supervision is radio dispatched in answer to the second call.

- 2 Battalion Chiefs

- 3 Pumper Hose Wagon Engines
- 1 Aerial Ladder
- 2 Chemical Trucks

6000 N. Lagoon Avenue

Portland, Oregon 97217

ITEM 4

November 30, 1971

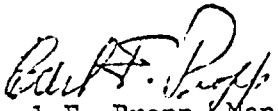
Mr. Bill Grace
Deputy Fire Marshall
Portland Bureau of Fire
55 S. W. Ash Street
Portland, Oregon 97204

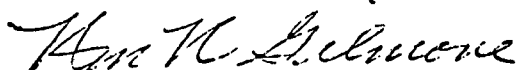
Dear Mr. Grace:

It has been the past policy and will continue to be the policy in Swan Island Ship Repair Yard that when vessels have a deactivated fire line system or no fire fighting system the procedure will be as follows:

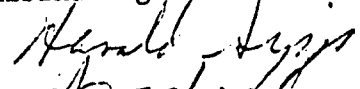
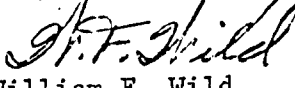
A water manifold will be provided on the vessel's main deck with a direct reading pressure gage, and a bleed valve capable of being cracked open to provide continuous flow during freezing weather. A reasonable amount of dry hose to be stacked on deck adjacent to the manifold. The boxes are painted conspicuous red and adequately marked to indicate their purpose. For extended time projects, i.e., unmanned vessels scheduled for over a 30 day stay in the yard, permanent auxiliary fire protection is provided by installing a fixed firemain on the weather deck along the outboard side of the vessel. This firemain is made up of aluminum medium weight irrigation piping in 20 foot lengths and extending the entire length of the ship, the ends are connected by a 4" hose to the water risers at the dock side. The fitting between lengths has a 2-1/2" valved hose connection. Fire Station Boxes as described above are located throughout the vessel as directed by the Ship Superintendent to provide optimum protection to all parts of the ship and are connected to the fixed aluminum fire main by 2-1/2" hoses. All hose connections to be national standard.

Very truly yours,

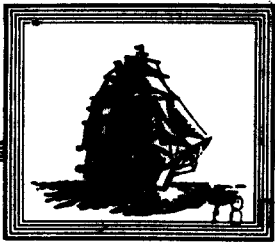

Carl F. Propp, Manager
Swan Island Ship Repair Yard
Port of Portland


William W. Gilmore
Assistant General Manager
Northwest Marine Iron Works

Harold Sipp
Production Manager
Albina Engine and Machine Works



William F. Wild
Assistant Manager, Marine
Willamette Iron and Steel Company

PSY500006380



NORTHWEST MARINE IRON WORKS

SHIP REPAIRING • GENERAL MACHINE WORK • ENGINEERING

MAIL ADDRESS: P. O. BOX 3109
PORTLAND, OREGON 97208

2516 N.W. 29TH AVENUE
TELEPHONE: 228-8222
AREA CODE 503
PORTLAND, OREGON

18 OCT 24 A 8:02

PORT OF PORTLAND

FILE

October 23, 1978

→ Carl Propp
w/enc.

Port of Portland
P.O. Box 3529
Portland, OR 97208

Attention: Mr. C. Propp, Shipyard Manager

Subject: Drydock Operating Procedure

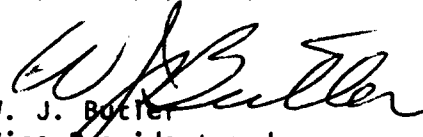
Reference: (a) S.O.S., Seattle, letter of 20 Oct 1978

Gentlemen:

Forwarded herewith please find a copy of letter Ref.
(a) and the enclosures forwarded with that letter.

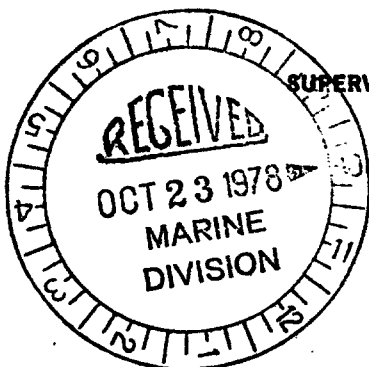
Please comment at your convenience.

Very truly yours,


W. J. Butler
Vice President and
General Manager

WJB/sw
Encl.

PSY500006381



DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:
11420
5100
Ser 460-6192

20 OCT 1978

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Distribution List

Subj: Safety Certification for Docking U.S. Navy Ships; Drydock Operating Procedure Critical Steps, Verification Requirements for

Ref: (a) NAVSEA ltr 070141/AW Ser 228 of 27 Sep 1978
(b) MIL-STD 1625A(SH), "Drydocking Facilities Safety Certification Criteria for Docking U.S. Navy Ships", of 07 Sep 1976

Encl: (1) NAVSEAINST 9210.23, "Verification Signatures for Naval Nuclear Work, Requirements for and Responsibility for Management Review and Retention of Records"
(2) NAVSEA ltr 07014/JRR Ser 26 of 15 Feb 1978 "Drydocking Policies; Copy of Form Letter to all Master Ship Repair Contractor's"

1. The Commander, Naval Sea Systems Command, by reference (a), expressed an increasing concern over the recent drydocking incidents and accidents of U.S. Navy ships because of deficient operating procedures for drydocking operations. Most recently, during flooding of one drydock at a naval shipyard, water entered an adjacent dock due to improper alignment of the pumphouse valves in the common pumping system servicing the two docks. A nuclear submarine was in overhaul in the adjacent dock. Clearly, all shipyards have not taken adequate action to control drydock operations and a real potential for serious accidents continues to exist.


2. One of the requirements in reference (b) for certifying docking facilities for docking Naval ships is that complete operating instructions and procedures for the drydock be prepared and available at appropriate stations. The recent partial flooding incidents indicate that local procedures and formality of control for drydock operations at shipyards are inadequate.

11420
5100
Ser 460-6192

20 OCT 1978

To minimize the possibility of future inadvertent drydock floodings, the following actions must be accomplished:

- a. Drydock operating procedures must be in step-by-step detail and must be followed verbatim. These procedures must include valve and control system lineup check sheets for use in prerequisite checks of dock systems status before the step-by-step dock operations are initiated. These check sheets must include requirements for independent checks of the valve and control positions by two individuals.
 - b. Formal prerequisite lists for the docks must be used for all docking/undocking or dock flooding/dock pump down operations. Similarly, formal prerequisite lists for the ship should be utilized when a Naval ship is involved in the operations.
 - c. Verification signature requirements, similar to those required by enclosure (1) for Naval nuclear work, must be included for critical steps in the procedures and in the prerequisite lists. For example, critical steps should include control system check list by line item and signatures for the proper positioning of each valve.
 - d. Methods of communication to the appropriate personnel shall be included in these procedures.
3. Accordingly, the requirements in paragraph 2 above are being incorporated in reference (b) and the procedures submitted as part of future drydock facility certification reports in accordance with enclosure (2) must meet these requirements.
4. The requirements cited above must be applied to future submittals of private shipyard Facility Certification Reports. Those facilities previously certified will include this data in the next recertification submittal.

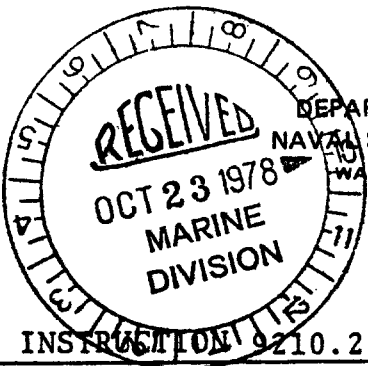

J. D. WINSTON
By direction

PSY500006383

Distribution List:

Astoria Marine Construction Company, Astoria, OR
The Boeing Company, Aerospace Group, Seattle
Cummings Boat Company, Inc., Tacoma
Duwamish Shipyard, Inc., Seattle
Dillingham Ship Repair, Portland
Fishermen's Boat Shop, Inc., Everett
Foss Launch and Tug Company, Seattle
Lake Union Drydock Company, Seattle
Lockheed Shipbuilding and Construction Company, Seattle
Marine Construction & Design Company, Seattle
Marine Iron Works, Inc., Tacoma
Marine Power & Equipment Company, Seattle
Marine Ways Corporation, Portland
Northwest Marine Iron Works, Portland ←
Pacific Fishermen, Inc., Seattle
Peterson Boat Building Company, Tacoma
Rowe Machine Works, Inc., Seattle
SEA-TAC Alaska Shipbuilding, Corp., Tacoma
Tacoma Boatbuilding Company, Inc., Tacoma
Todd Pacific Shipyards Corporation, Seattle Division, Seattle
Uniflite, Inc., Bellingham
Willamette Iron & Steel Company, Division of Guy F. Atkinson Co., Portland

Copy to:
NAVSEA (07)



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

Formerly
NAVSHIPSINST 9890.23A

IN REPLY REFER TO
NAVSEAINST 9210.23
Ser 080-6720
22 January 1976

NAVSEA INSTRUCTION 9210.23

From: Commander, Naval Sea Systems Command

Subj: Verification Signatures for Naval Nuclear Work;
Requirements for and Responsibility for Management
Review and Retention of Records

1. Purpose This instruction promulgates to Naval activities and private shipyards engaged in construction, overhaul, decontamination, refueling, and testing associated therewith of Naval nuclear propulsion plants, requirements for recording of data and signatures certifying completion of designated actions, for periodic review by senior personnel of these data and signatures, and for retention of these data and signatures as permanent records.

2. Cancellation This instruction cancels and supersedes NAVSHIPSINST 9890.23A, Ser 080-1165 dated 12 October 1971.

3. Discussion

a. Verification signatures are required in NAVSEA approved manuals, procedures, and test documents for reactor plant construction, overhaul, decontamination, refueling work and the testing associated therewith in order to certify completion of designated actions such as the following:

(1) Items involving personnel and equipment safety, prevention of accidental criticality, control of radiation exposure, and assurance of proper operation of circuits or equipment which provide reactor protection, containment, plant integrity, or an engineered safeguard.

(2) Items where omission or error in performance could credibly result in operation of plant protective devices, loss of important data which could not be obtained without excessive time or effort for rework or retesting, or improper conduct of testing or work such that the worth of the testing or work is compromised.

(3) Items involving verification that a condition (e.g., a minimum or maximum value for a measured or calculated parameter) specified in a step by step procedure as a pre-requisite to further testing or work has been satisfactorily achieved.

b. As a function of the type of action to be verified and the duties of the person making the verification, one of the following statements is included on each page of NAVSEA approved manuals and procedures on which a verification signature is required:

(1) "The person designated to sign for an action verifies, based on personal observation, and certifies by his signature that the action has actually been performed in accordance with the specified requirements."

(2) "The person designated to sign for an action verifies, based on personal observation, certified records, or direct report from watchstanders, and certifies by his signature that the action has been performed in accordance with the specified requirements."

c. Many shipyard prepared manuals, procedures, and test documents also require the recording of data or the verification of proper performance of designated action such as those described in paragraph 3.a. above.

4. Action

a. Shipyards performing Naval nuclear work should ensure that shipyard prepared manuals, procedures, and test documents include verification signature statements for the recording of data or the verification of proper performance of designated actions for the types of reactor plant work items described in paragraph 3.a. above. As a function of the type of action to be verified and the duties of the person making the verification, one of the statements listed in paragraph 3.b. above should be included on each page of the shipyard prepared procedure or document on which a verification signature is required. Verification signatures should have an accompanying statement that clearly states what is being signed for. Ditto marks, continuation arrows, or initials are not acceptable as verification signatures.

22 January 1976

b. Verification signatures and recorded data for reactor plant work should receive periodic review by senior personnel not normally holding line responsibility for the work involved, to provide a high degree of assurance that recording-of-data and sign-off requirements for reactor plant work are met.

c. Verification signatures and recorded data should be maintained as permanent records in accordance with the applicable contract. Where requirements for retention of data or signatures as permanent records are not specified by the applicable contract, this information should be retained for a minimum of ten years, with the following exceptions:

(1) Refueling information shall be retained until completion of the next refueling availability.

(2) Documents containing radiological control verification signatures shall be retained in accordance with the radiological control records requirements of NAVSHIPS 389-0288, "Radiological Controls for Shipyards".

5. Implementation

a. Shipyards performing Naval nuclear work should implement the action of this instruction upon receipt where no change in delivery or completion dates or in the current negotiated price or amount of any Government contract, project order or allotment will result.

b. NAVSEA intends to incorporate this instruction in all future contracts and project orders for Naval nuclear work.

6. Contractual Effect The action taken by this instruction is considered by NAVSEA to be within the scope of existing contracts, project orders, and allotments, and no change in delivery or completion dates or in the current negotiated price or amount of any Government contract, project order or allotment is authorized.


H. G. Rickover
Deputy Commander for
Nuclear Propulsion

NAVSEAINST 9210.23

22 January 1976

Distribution: (2 copies each)

SNDL A3 CNO (OP-02, OP-03, OP-09B1)
A4A Chief of Naval Material
21A CINCPACFLT, CINCLANTFLT
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24D COMNAVSURFPAC, COMNAVSURFLANT
24G COMSUBPAC, COMSUBLANT
28A Carrier Group
28C1 Destroyer and Cruiser Destroyer Flotillas
28K1 Submarine Squadrons, Groups, and Development Groups
29E3 Guided Missile Cruisers (CGN9, 25, 35, 36, 37)
29H Attack Aircraft Carriers (CVAN65, 68)
29S4 Submarines (SSN)
29S8 Submarines, Fleet Ballistic Missile (SSBN)
29S9 NR-1 (1)
32DD Submarine Tenders
FA10 SUBASE LANT
FB13 SUBASE PAC
FF8 SUBINSURV
FKP7 NAVSHIPYD (PTSMH, PUGET, CHASN, PEARL, NORVA, MARE)
FKP8 SUPSHIP (Groton, Pascagoula, Newport News)
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NAVSEAINST 9210.23
22 January 1976

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UUF

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

IN REPLY REFER TO

07014/JJR

Ser 26

FEB 15 1978

Attn:

Dear

The Naval Sea Systems Command, in January 1977, established the policy that all facilities utilized in drydocking operations involved in new construction, repair or overhaul of U.S. Navy ships must be certified in accordance with MIL-STD 1625A(SH) (enclosed). The objective is to provide greater assurance of the safety of U.S. Navy ships during docking/undocking operations and while in drydock.

This letter advises the addressees of that policy. Addressees are further advised that on and after 1 January 1980 (i) MIL-STD 1625A(SH), Drydocking Facilities Safety Certification Criteria for Docking U.S. Navy Ships, will be contractually invoked in all shipbuilding, repair and overhaul contracts executed after 31 December 1979, and (ii) docking facilities of prospective contractors certified in accordance with MIL-STD 1625A(SH) will be a requirement considered in pre-award surveys in determining responsibility for Government contracts involving docking operations as described above.

Costs, if any, of drydock certification to comply with the policy set forth above, are deemed to be ordinary costs of doing business, and will be considered for allowability and allocability to Government contracts in accordance with Section XV and Appendix O of the Armed Services Procurement Regulations (ASPR) and with the prospective Government Contractor's standard accounting practices, as applicable.

To enable this Command (NAVSEA 07) to establish a realistic schedule for its participation in the certification process, addressees are requested to provide, if not previously provided, within 90 days after receipt of this letter, their plan for implementation of compliance with the enclosure.

Sincerely,

Enclosure

ENCLOSURE (2)

H. A. HOFFMANN, RADM, USN
Deputy Commander for
Industrial and Facility
Management

PSY500006390



Port of Portland

1000 29th Street, Portland, OR 97202
503/462-1000
Fax: 503/462-1001

October 24, 1978

Walt Larsen
Wisco
2800 N. W. Front
Portland, Oregon 97210

Subj: Safety Certification for Docking U.S. Navy Ships;
Drydock Operating Procedure Critical Steps, Verification
Requirements for

Ref: (a) NAVSEA 1 tr 070141/AW Ser 228 of 27 Sep 1978
(b) MIL-STD 1625A (SH) "Drydocking Facilities Safety
Certification Criteria for Docking U.S. Navy Ships"
of 07 Sep 1976

We acknowledge requirements in subject letter. At time of re-
certification, 1980, they will be submitted to the Navy for their
evaluation however this information will be passed on for the
operational criteria listed to our Drydock #4 agent.

Very truly yours,

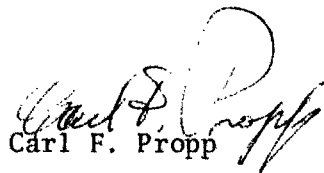
Carl F. Propp, Mgr.
Swan Island Ship Repair Yard

PSY500006391

October 24, 1978

Dave Neset

See attached to Wisco regarding requirements set forth in letter. It should be noted that these recommendations must be followed in future Drydock certification - DD#4. We suggest this information be passed on to Paul Crandall.


Carl F. Propp

cc: Bob Balaski

PSY500006392

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

78 OCT 24 A 8: 01

THE PORT OF PORTLAND

IN REPLY REFER TO:
11420
5100
Ser 460-6192

20 OCT 1978

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Distribution List

Subj: Safety Certification for Docking U.S. Navy Ships; Drydock Operating Procedure Critical Steps, Verification Requirements for

Ref: (a) NAVSEA ltr 070141/AW Ser 228 of 27 Sep 1978
(b) MIL-STD 1625A(SH), "Drydocking Facilities Safety Certification Criteria for Docking U.S. Navy Ships", of 07 Sep 1976

Encl: (1) NAVSEAINST 9210.23, "Verification Signatures for Naval Nuclear Work, Requirements for and Responsibility for Management Review and Retention of Records"
(2) NAVSEA ltr 07014/JRR Ser 26 of 15 Feb 1978 "Drydocking Policies; Copy of Form Letter to all Master Ship Repair Contractor's"

1. The Commander, Naval Sea Systems Command, by reference (a), expressed an increasing concern over the recent drydocking incidents and accidents of U.S. Navy ships because of deficient operating procedures for drydocking operations. Most recently, during flooding of one drydock at a naval shipyard, water entered an adjacent dock due to improper alignment of the pumphouse valves in the common pumping system servicing the two docks. A nuclear submarine was in overhaul in the adjacent dock. Clearly, all shipyards have not taken adequate action to control drydock operations and a real potential for serious accidents continues to exist.

2. One of the requirements in reference (b) for certifying docking facilities for docking Naval ships is that complete operating instructions and procedures for the drydock be prepared and available at appropriate stations. The recent partial flooding incidents indicate that local procedures and formality of control for drydock operations at shipyards are inadequate.

11420
5100
Ser 460-6192

20 OCT 1978

To minimize the possibility of future inadvertent drydock floodings, the following actions must be accomplished:

a. Drydock operating procedures must be in step-by-step detail and must be followed verbatim. These procedures must include valve and control system lineup check sheets for use in prerequisite checks of dock systems status before the step-by-step dock operations are initiated. These check sheets must include requirements for independent checks of the valve and control positions by two individuals.

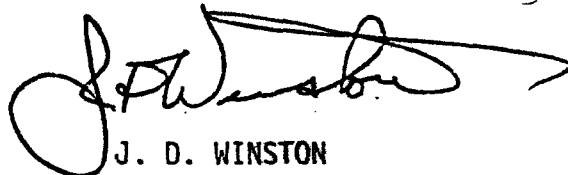
b. Formal prerequisite lists for the docks must be used for all docking/undocking or dock flooding/dock pump down operations. Similarly, formal prerequisite lists for the ship should be utilized when a Naval ship is involved in the operations.

c. Verification signature requirements, similar to those required by enclosure (1) for Naval nuclear work, must be included for critical steps in the procedures and in the prerequisite lists. For example, critical steps should include control system check list by line item and signatures for the proper positioning of each valve.

d. Methods of communication to the appropriate personnel shall be included in these procedures.

3. Accordingly, the requirements in paragraph 2 above are being incorporated in reference (b) and the procedures submitted as part of future drydock facility certification reports in accordance with enclosure (2) must meet these requirements.

4. The requirements cited above must be applied to future submittals of private shipyard Facility Certification Reports. Those facilities previously certified will include this data in the next recertification submittal.




J. D. WINSTON
By direction

PSY500006394

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Copy to:
NAVSEA (07)



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20382

Formerly
NAVSHIPSINST 9890.23A

IN REPLY REFER TO
NAVSEAINST 9210.23
Ser 080-6720
22 January 1976

NAVSEA INSTRUCTION 9210.23

From: Commander, Naval Sea Systems Command

Subj: Verification Signatures for Naval Nuclear Work;
Requirements for and Responsibility for Management
Review and Retention of Records

1. Purpose This instruction promulgates to Naval activities and private shipyards engaged in construction, overhaul, decontamination, refueling, and testing associated therewith of Naval nuclear propulsion plants, requirements for recording of data and signatures certifying completion of designated actions, for periodic review by senior personnel of these data and signatures, and for retention of these data and signatures as permanent records.

2. Cancellation This instruction cancels and supersedes NAVSHIPSINST 9890.23A, Ser 080-1165 dated 12 October 1971.

3. Discussion

a. Verification signatures are required in NAVSEA approved manuals, procedures, and test documents for reactor plant construction, overhaul, decontamination, refueling work and the testing associated therewith in order to certify completion of designated actions such as the following:

(1) Items involving personnel and equipment safety, prevention of accidental criticality, control of radiation exposure, and assurance of proper operation of circuits or equipment which provide reactor protection, containment, plant integrity, or an engineered safeguard.

(2) Items where omission or error in performance could credibly result in operation of plant protective devices, loss of important data which could not be obtained without excessive time or effort for rework or retesting, or improper conduct of testing or work such that the worth of the testing or work is compromised.

S-137

ENCLOSURE (1)

PSY500006396

(3) Items involving verification that a condition (e.g., a minimum or maximum value for a measured or calculated parameter) specified in a step by step procedure as a pre-requisite to further testing or work has been satisfactorily achieved.

b. As a function of the type of action to be verified and the duties of the person making the verification, one of the following statements is included on each page of NAVSEA approved manuals and procedures on which a verification signature is required:

(1) "The person designated to sign for an action verifies, based on personal observation, and certifies by his signature that the action has actually been performed in accordance with the specified requirements."

(2) "The person designated to sign for an action verifies, based on personal observation, certified records, or direct report from watchstanders, and certifies by his signature that the action has been performed in accordance with the specified requirements."

c. Many shipyard prepared manuals, procedures, and test documents also require the recording of data or the verification of proper performance of designated action such as those described in paragraph 3.a. above.

4. Action

a. Shipyards performing Naval nuclear work should ensure that shipyard prepared manuals, procedures, and test documents include verification signature statements for the recording of data or the verification of proper performance of designated actions for the types of reactor plant work items described in paragraph 3.a. above. As a function of the type of action to be verified and the duties of the person making the verification, one of the statements listed in paragraph 3.b. above should be included on each page of the shipyard prepared procedure or document on which a verification signature is required. Verification signatures should have an accompanying statement that clearly states what is being signed for. Ditto marks, continuation arrows, or initials are not acceptable as verification signatures.



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

IN REPLY REFER TO
07014/JJR
Ser 26

FEB 15 1978

Attn:

Dear

The Naval Sea Systems Command, in January 1977, established the policy that all facilities utilized in drydocking operations involved in new construction, repair or overhaul of U.S. Navy ships must be certified in accordance with MIL-STD 1625A(SH) (enclosed). The objective is to provide greater assurance of the safety of U.S. Navy ships during docking/undocking operations and while in drydock.

This letter advises the addressees of that policy. Addressees are further advised that on and after 1 January 1980 (i) MIL-STD 1625A(SH), Drydocking Facilities Safety Certification Criteria for Docking U.S. Navy Ships, will be contractually invoked in all shipbuilding, repair and overhaul contracts executed after 31 December 1979, and (ii) docking facilities of prospective contractors certified in accordance with MIL-STD 1625A(SH) will be a requirement considered in pre-award surveys in determining responsibility for Government contracts involving docking operations as described above.

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To enable this Command (NAVSEA 07) to establish a realistic schedule for its participation in the certification process, addressees are requested to provide, if not previously provided, within 90 days after receipt of this letter, their plan for implementation of compliance with the enclosure.

Sincerely,

Enclosure

ENCLOSURE (2)

H. A. HOFFMANN, RADM, USN
Deputy Commander for
Industrial and Facility
Management

PSY500006398

22 January 1976

b. Verification signatures and recorded data for reactor plant work should receive periodic review by senior personnel not normally holding line responsibility for the work involved, to provide a high degree of assurance that recording-of-data and sign-off requirements for reactor plant work are met.

c. Verification signatures and recorded data should be maintained as permanent records in accordance with the applicable contract. Where requirements for retention of data or signatures as permanent records are not specified by the applicable contract, this information should be retained for a minimum of ten years, with the following exceptions:

(1) Refueling information shall be retained until completion of the next refueling availability.

(2) Documents containing radiological control verification signatures shall be retained in accordance with the radiological control records requirements of NAVSHIPS 389-0288, "Radiological Controls for Shipyards".

5. Implementation

a. Shipyards performing Naval nuclear work should implement the action of this instruction upon receipt where no change in delivery or completion dates or in the current negotiated price or amount of any Government contract, project order or allotment will result.

b. NAVSEA intends to incorporate this instruction in all future contracts and project orders for Naval nuclear work.

6. Contractual Effect The action taken by this instruction is considered by NAVSEA to be within the scope of existing contracts, project orders, and allotments, and no change in delivery or completion dates or in the current negotiated price or amount of any Government contract, project order or allotment is authorized.


H. G. Rickover
Deputy Commander for
Nuclear Propulsion

NAVSEAINST 9210.23

22 January 1976

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32DD Submarine Tenders
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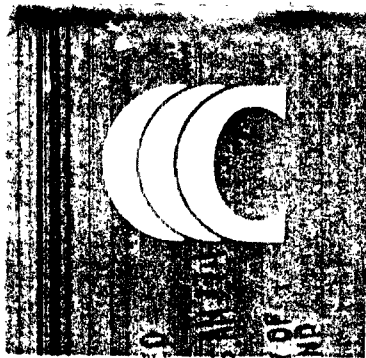
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RECEIVED
FEB 13 1974
PORTLAND
February 13, 1974

Mr. Carl Propp
The Port of Portland
P. O. Box 3529
Portland, Oregon 97208

Re: Navy Dry Dock
"WFD-69"

	Action	Info
Commission		
Executive Director		
Attorney		
Aviation		
Community Services		
Development Services		
Finance / Administration		
Legal / Regulatory		
Marine / Marketing		
<i>C. Propp</i>	<i>X</i>	<i>Ⓢ</i>
<i>B.D. Gordon</i>		
No. of Copies	1	

Dear Mr. Propp:

We enclose a copy of the Condition and Valuation survey prepared by United States Salvage Association and dated October 28, 1971.

Underwriters are inquiring as to what action has been taken as respects the recommendations listed on page 15 of the report. In the event they have not been complied with, then they are requesting when you are planning to take care of them.

Please do not hesitate to call if you would like to discuss this in greater detail.

Very truly yours,

Richard C. Easter

RICHARD C. EASTER

RCE/db
Encl.

cc: Mr. Bernard D. Gordon

PSY500006402

UNITED STATES SALVAGE ASSOCIATION, INC.

99 JOHN STREET



NEW YORK N. Y., 10038

CASE NO. 80-13075
CONDITION AND VALUATION

PORTLAND, OREGON
OCTOBER 28, 1971

PORT OF PORTLAND DRYDOCK "YFD-69"

CONDITIONS

The employment of this Association and all services rendered in connection therewith are made, offered and rendered without recourse and on the following conditions and this and all other reports, including any oral reports and certificates, are made and issued without recourse and subject to said conditions:

1. While the officers and the Board of Directors of United States Salvage Association, Inc. have used their best endeavors to select competent surveyors, employees, representatives and agents and to insure that the functions of the Association are properly executed, neither the Association nor its officers, directors, surveyors, employees, representatives or agents are under any circumstances whatever to be held responsible for any error of judgment, default or negligence of the Association's surveyors, employees, representatives or agents nor shall the Association or its officers or directors under any circumstances whatever be held responsible for any inaccuracy, omission, misrepresentation or misstatement in any report or certificate.

2. That the information contained in this and all other reports and certificates is only that coming to the attention of or under the observation of such surveyors, employees, representatives and agents and deemed pertinent for the purpose for which the Association was employed as stated herein; that this report or certificate is not a Certificate of Seaworthiness; that under no circumstances shall this report or certificate be used in connection with the issuance, purchase, sale or pledge of any security or securities, or in connection with the purchase, sale, mortgage, pledge, freightage, letting, hiring or charter of any vessel, cargo or other property, and if so used shall be null, void and of no effect and shall not be binding on anyone.

3. Reports subject to these conditions are the only reports authorized by the Association.

4. The terms of these conditions can be varied only by specific resolution of the Board of Directors of the Association and the acceptance or use of this report or of the employment or services of this Association or of its surveyors, employees, representatives or agents or the use of any other report or certificate shall be construed to be an acceptance of these conditions.

5. This report and all services in connection with this employment are for the account of the person requesting the same, but with the understanding that they are to be used only for the purpose for which the Association was employed as stated herein.

REPORT OF SURVEY MADE BY THE UNDERSIGNED SURVEYOR OF THE UNITED STATES SALVAGE ASSOCIATION, INCORPORATED, ON OCTOBER 21, 22, 25, AND 26, 1971 AT THE REQUEST OF FIREMAN'S FUND AMERICAN INSURANCE COMPANIES, PORTLAND, OREGON ON THE PORT OF PORTLAND DRYDOCK "YFD-69", UNITED STATES NAVY, OWNERS, PORT OF PORTLAND, OPERATORS, WHILE LYING AFLOAT AT SWAN ISLAND, PORTLAND, OREGON, IN ORDER TO ASCERTAIN THE CONDITION, VALUATION, AND SUITABILITY FOR SERVICE OF THE VESSEL.

ATTENDING:

MR. KEITH MURDOCK REPRESENTING PORT OF PORTLAND

DESCRIPTION:

THE DRYDOCK "YFD-69" IS A WELDED STEEL STRUCTURAL DESIGN CONSISTING OF ONE (1) CENTER SECTION AND TWO (2) END SECTIONS, AND THEN BOLTED TOGETHER. THE STRUCTURE WAS CONSTRUCTED FOR THE UNITED STATES NAVY IN 1944. EACH SECTION CONSISTS OF A PONTOON AND TWO (2) RECTANGULAR FIXED SIDE WALLS. THERE ARE TWO (2) 35' OUTRIGGERS, ONE (1) EACH END.

DIMENSIONS:

LENGTH	528'00"	BREADTH	90'00"	DEPTH	25'07"
LENGTH WITH OUTRIGGERS	598'00"				
CAPACITY:	14,000 TONS @ 18" FREEBOARD				
	17,500 TONS @ 0" FREEBOARD				
WIDTH BETWEEN WALLS	87'00"				

DESIGNER:

THE FREDERICK HARRIS COMPANY, NEW YORK, NEW YORK.

BUILDER:

THE KAISER COMPANY, INCORPORATED, 1944.

CASE NO. 80-13075

OWNER:

UNITED STATES NAVY

THE DOCK CONSISTS OF THREE (3) PONTOONS, THREE (3) SIDE WALLS ON EACH SIDE, AND TWO (2) OUTRIGGER TYPE APRONS, PLUS A CENTER BUOYANCY SECTION. THE PONTOONS ARE ATTACHED TO THE SIDE WALLS, AND THE APRONS ARE ATTACHED TO EACH END OF THE END SECTION PONTOONS. EACH OF THE PONTOONS IS SECURED TO THE BUOYANCY SECTION WHICH RUNS FULL LENGTH OF THE VESSEL.

THE VESSEL IS OF THE HARRIS TYPE, WHICH IS DESIGNED TO PERMIT DOCKING OF THE CENTER SECTION ON THE TWO (2) END SECTIONS.

THE VESSEL IS DESIGNED WITH PROVISIONS MADE FOR INSTALLATION OF FLYING BRIDGE CONNECTIONS AT BOTH ENDS.

THE DOCK DEPENDS ON SHORE POWER FOR OPERATION.

THE CENTER STRUCTURE FRAMING IS NUMBERED FROM THE AFTER END FORWARD FROM FRAME 1 TO FRAME 61 ON 8' CENTERS, AND THE END SECTIONS ARE EACH LETTERED AFT TO FORWARD STARTING WITH "A" BULKHEAD THROUGH "D" BULKHEAD, WITH TWO (2) INTERMEDIATE FRAMES ON 8' CENTERS. THE INTERMEDIATE FRAMES ARE LETTERED "B" AND "C".

THE VESSEL HAS SEVEN (7) WATERTIGHT TRANSVERSE BULKHEADS FULL WIDTH, WITH TWO (2) COLLISION BULKHEADS.

VESSEL PARTICULARS:

LENGTH OF PONTOONS: 528'00"
LENGTH OF OUTRIGGERS: 35'00" EACH, TOTAL 70'00"
LENGTH OVERALL: 598'00"
LENGTH OF KEEL LINE BLOCKING: 516'00"
WIDTH INSIDE SIDE WALLS (MOLDED): 90'00"
CLEAR WIDTH AT HEIGHT OF KEEL LINE AT STAIRS: 84'00"
CLEAR WIDTH AT HEIGHT OF KEEL LINE AT PIPES: 87'00"
CLEAR WIDTH BETWEEN FENDERS: 87'00"
MINIMUM CLEAR WIDTHS: 87'00"
WIDTH OVERALL: 118'00"
HEIGHT: 52'02"
HEIGHT OF SIDE WALL ABOVE LOWEST POINT OF PONTOON DECK: 36'06"
DEPTH OF PONTOON AT CENTERLINE: 16'02"
DECK CROWN: 0'06"
BOTTOM RISE: 6'06"
BOTTOM RADIUS: 271'00"
FREEBOARD - SIDE WALLS, NORMAL SUBMERGENCE: 6'05"
NORMAL MAXIMUM DRAFT OVER 4'0" KEEL BLOCKS: 25'07"

DESIGN PRESSURES:

BUOYANCY CHAMBERS

TOP DECK: 50' HEAD - 22#/SQUARE INCH
BOTTOM PLATE: 50' HEAD - 22#/SQUARE INCH
LONGITUDINAL BULKHEADS AND SIDES: 34' TO 50' HEAD - 15#/SQUARE INCH TO 22#/SQUARE INCH

CASE NO. 80-13075

DESIGN PRESSURES: CON'T

PONTON BALLAST COMPARTMENTS

DECK, SIDES, BOTTOM: 20' HEAD - $9\frac{1}{2}$ /SQUARE INCH
INTERMEDIATE TRANSVERSE BULKHEADS: 13' HEAD - $5\text{-}3\frac{1}{4}$ /SQUARE INCH
SIDE WALLS: 13' HEAD - $5\text{-}3\frac{1}{4}$ /SQUARE INCH
TOP DECK: 600/SQUARE FOOT, WHEN NOT LOADED WITH A SHIP
SAFETY DECK: 600/SQUARE FOOT, WHEN NOT LOADED WITH A SHIP
SIDES AND END PLATING: 10' TO 20' HEAD - $4\text{-}1\frac{1}{2}$ /SQUARE INCH
TO $9\frac{1}{2}$ /SQUARE INCH

CONSTRUCTION:

SIDE WALLS: $3/8$ " PLATE AT TOP, $1/2$ " PLATE AT BOTTOM.

TOP DECK PLATING: $7/16$ " PLATE.

SAFETY DECK: $3/8$ " PLATE.

BOTTOM: $7/16$ " PLATE.

BULKHEADS: $3/8$ " PLATE.

WING WALLS ABOVE SAFETY DECK (ALL SECTIONS):

BULKHEADS - $3/8$ " PLATE.

LONGITUDINAL FRAMES - TOP, SIDES, BOTTOM - $3\text{-}1\frac{1}{2}$ " x 6" x $1/4$ " ANGLES SERRATED, 24" O.C.

VERTICAL WEB FRAMES - 16" x $3/8$ " PLATE WITH $6\text{-}1\frac{1}{2}$ " x $1/2$ " FLANGES, 8' O.C.

TRANSVERSE DECK BEAMS - 16" WEB FRAMES x $3/8$ " PLATE WITH $6\text{-}1\frac{1}{2}$ " x $1/2$ " FLANGES, 8' O.C.

NOTE: THE OUTBOARD SIDES OF COMPARTMENTS 32, 33, 42, AND 43 ARE FRAMED VERTICALLY WITH 4" x $3/8$ " WEB FRAMES WITH $6\text{-}1\frac{1}{2}$ " x $1/2$ " FLANGES, 8' O.C.

WING WALLS BELOW SAFETY DECK (ALL SECTIONS):

BULKHEADS - $3/8$ " PLATE.

LONGITUDINAL FRAMES - TOP, SIDES, BOTTOM - $3\text{-}1\frac{1}{2}$ " x 6" x $1/4$ " SERRATED ANGLES, 24" O.C.

VERTICAL WEB FRAMES - 16" x $3/8$ " PLATE WITH $6\text{-}1\frac{1}{2}$ " x $1/2$ " FLANGES, 8' O.C.

TRANSVERSE TOP TRUSSES - 20" AND 24" x $11/16$ " WEB FRAME WITH 8" x $1/2$ " FLANGES, 8' O.C.

DIAGONALS - 7" x 26.5# STEEL "T" BARS.

VERTICALS - 10" x 54# WEB FRAME, VARYING CENTERS 8' O.C. TO 16' O.C.

TRANSVERSE BOTTOM TRUSSES - 20" x $7/16$ " WEB FRAME WITH 14" x $1/2$ " FLANGES, 8' O.C.

PONTOONS:

DECK - $7/16$ " PLATE.

BOTTOM - $7/16$ " PLATE.

SIDES - $3/8$ " AND $1/2$ " PLATE.

BULKHEADS - $3/8$ " PLATE.

LONGITUDINAL STIFFENERS - TOP, SIDES, BOTTOM - $3\text{-}1\frac{1}{2}$ " x 6" x $1/4$ " SERRATED ANGLES, 24" O.C.

TOP WEB FRAMES - 24" x $7/16$ " WITH 8" x $1/2$ " FLANGES, 8' O.C.

BOTTOM WEB FRAMES - 20" x $3/8$ " WITH 8" x $1/2$ " FLANGES, 8' O.C.

DIAGONALS - 8" x 48# WEB FRAMES, FLANGED.

VERTICALS - 10" x 54# WEB FRAMES, FLANGED ON VARYING CENTERS.

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CONSTRUCTION: CONT

CENTER BUOYANCY SECTIONS:

DECK - 7/16" PLATE.

BOTTOM - 7/16" PLATE.

BULKHEADS - 3/8" PLATE.

SIDES - 7/16" PLATE.

LONGITUDINAL STIFFENERS - TOP, SIDES, BOTTOM - 3-1/2" x 6" x 1/4" SERRATED ANGLES, 24" O.C.

VERTICAL WEB FRAMES - 20" x 3/8" WITH 8" x 1/2" FLANGES, 8' O.C.

TOP TRANSVERSE FRAMES - 24" x 7/16" WITH 8" x 1/2" FLANGES, 8' O.C.

BOTTOM TRANSVERSE FRAMES - 20" x 3/8" WITH 8" x 1/2" FLANGES, 8' O.C.

DIAGONALS - 8" x 48# WEB FRAMES, FLANGED.

VERTICAL POSTS - 10" x 54# WEB FRAMES, FLANGED ON VARYING CENTERS.

BUOYANCY CHAMBER LOCATED BETWEEN FRAMES 20 AND 42.

PIPING SYSTEMS:

STEAM: 4" MAIN WITH 2" LATERALS.

RIVER WATER: 6" MAIN WITH 3" LATERALS.

COMPRESSED AIR: 4" MAIN WITH 2" LATERALS.

FRESH WATER: 6" MAIN WITH 3" LATERALS.

SEWER: 6" LINE.

CONTROL AIR: 1" LINE.

OXYGEN: 1-1/2" LINE.

ACETYLENE: 1-1/2" LINE.

FIRE LINE: 4" LINE WITH 2" LATERALS.

PONTOON VENTS: 8" LINES FROM BALLAST TANKS TO TOP OF WING WALLS.

DECK FITTINGS:

FITTINGS AND EQUIPMENT ON TOP OF EACH WING WALL INCLUDE CLEATS, CAPSTANS, FAIRLEADS, PADYES, FIRE STATIONS, LIFE RING CABINETS, ELECTRICAL OUTLETS, ETC.

CAPSTANS: FOUR (4) ON EACH SIDE.

CLEATS: FIFTEEN (15) ON EACH SIDE.

ROLLING CHOCKS: FOUR (4) ON EACH SIDE.

MANHOLES: EIGHT (8) ON EACH SIDE.

FIRE HOSE STATIONS: THREE (3) ON EACH WING WALL, BUT ONLY ONE (1) ON EACH WING WALL HAD A NOSE INSTALLED.

FIRE MAIN OUTLETS: FIFTEEN (15) 2-1/2" OUTLETS WITH SHUT OFF VALVES.

FIRE MONITORS: TWO (2) ON STARBOARD WING WALL AND FOUR (4) ON PORT WING WALL.

POTABLE WATER OUTLETS: THREE (3) ON PORT WING WALL.

LIFE RINGS AND LINES: FIVE (5) ON EACH SIDE.

FAIRLEADS: FIVE (5) ON EACH SIDE.

ELECTRICAL PLUG-INS ON DECK OF WING WALLS: SEVEN (7) ON EACH SIDE.

COVERED LADDER ACCESS: TWO (2) ON EACH WING WALL.

ELECTRICAL PLUG-INS ON HAND RAILS: EIGHTEEN (18) ON EACH SIDE.

CONTROL STATIONS: THREE (3) ON EACH SIDE.

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DECK FITTINGS: CON'T

BLOCKS: SINGLE SHEAVE, WOOD OR STEEL - THREE (3) ON EACH WING WALL.

ELECTRICAL CONTROL BOXES: 120/208 VOLTS - THREE (3) ON EACH SIDE.

TELEPHONE JACKS: THREE (3) PORT SIDE WING WALL.

WELDING LEAD RACKS: TEN (10) PORT SIDE WING WALL.

LINCOLN WELDING MACHINES: THREE (3) ON PORT SIDE WING WALL.

P & H WELDING MACHINES: ONE (1) ON PORT SIDE WING WALL.

M. G. SET: ONE (1) ON PORT SIDE WING WALL.

MOORING SPUDS AND GUIDES:

THE STRUCTURE HAS THREE (3) STEEL MOORING SPUDS ATTACHED TO THE PORT WING WALL ADJACENT TO THE OUTFITTING PIER. THE SPUDS ARE CONNECTED TO GUIDES WHICH ARE PERMANENTLY INSTALLED TO THE PIER. THE SPUD GUIDE AND ASSEMBLIES ARE LOCATED APPROXIMATELY 75' FROM EACH END AND AT THE MID-POINT.

THE ARRANGEMENT OF THE SPUDS AND GUIDES PERMITS OPERATION OF THE DRYDOCK AT VIRTUALLY ALL LEVELS OF THE RIVER.

FENDERS:

THERE ARE TWO (2) COURSES OF HEAVY TIMBER FENDERS INSTALLED ON THE INBOARD FACES OF THE WING WALLS. ONE (1) COURSE IS AT THE TOP DECK LEVEL, AND THE OTHER IS APPROXIMATELY 20' DOWN FROM THE TOP COURSE.

PUMPING SYSTEMS:

THE PUMPS WERE MANUFACTURED BY THE MORRIS MACHINE WORKS, AND ARE OF THE SOLID VOLUTE, VERTICAL SHAFT, MIXED FLOW TYPE.

THERE ARE FOUR (4) IN EACH CENTER SECTION ON EACH SIDE, AND TWO (2) IN THE END SECTIONS ON EACH SIDE.

EACH PUMP IS CONNECTED TO ELECTRIC MOTORS THROUGH STEEL SHAFTING, STEADY BEARINGS, THRUST BEARINGS, FLEXIBLE COUPLINGS, AND STUFFING BOXES. THE MOTORS FOR THE CENTER SECTION PUMPS ARE INDUCTION TYPE, EACH RATED AT 440 VOLTS, 200 H.P.; AND 440 VOLTS, 100 H.P. FOR THE MOTORS IN THE END SECTIONS.

THE CENTER SECTION PUMPS HAVE 30" DISCHARGES AND 30" SUCTIONS, ARE CAPABLE OF PUMPING 29,000 GALLONS PER MINUTE AGAINST A 14 FOOT TOTAL DYNAMIC HEAD OR 24,000 GALLONS PER MINUTE AGAINST A 27 FOOT TOTAL DYNAMIC HEAD. THE END SECTION PUMPS ARE CONNECTED TO 18" SUCTION AND 18" DISCHARGE LINES AND ARE CAPABLE OF PUMPING APPROXIMATELY ONE HALF OF THE AMOUNT OF WATER THAT THE LARGER PUMPS DELIVER.

THE PUMPS ARE ALL PRIMED BY A VACUUM SYSTEM ON EACH SIDE OF THE VESSEL WHICH IS OPERATED BY NORTH ENGINEERING COMPANY ROTARY TYPE, WATER SEALED, VET VACUUM TYPE PUMPS. THE PUMPS ARE CAPABLE OF REMOVING 95 CFM OF AIR AT 15" MERCURY VACUUM. THE PRIME MOVER FOR THE PUMP IS A 5 H.P., 440 VOLT, 3 PHASE, 60 CYCLE, INDUCTION MOTOR. PRIMING VALVES ARE BELL FLOAT TYPE, INSTALLED IN THE PRIMING BRANCHES OF EACH MAIN PUMP SUCTION.

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PUMPING SYSTEMS: CON'T

EACH PONTOON HAS EIGHT (8) BALLAST COMPARTMENTS NUMBERED 5, 6, 7, 8, 9, 10, 11, AND 12, AND THE CENTER BUOYANCY CHAMBER IS ARRANGED TO PROVIDE FOUR (4) ADDITIONAL BALLAST COMPARTMENTS OR TRIMMING TANKS, WITH TWO (2) AT EACH END OF THE CENTER SECTION, NUMBERED 20, 21, 24, AND 25.

THE EIGHT (8) BALLAST COMPARTMENTS OF THE CENTER SECTIONS ARE ARRANGED IN GROUPS OF FOUR (4) EACH.

A SEPARATE 30" VALVED FLOODING INLET AND A SEPARATE 30" VALVED SUCTION INLET IS INSTALLED IN EACH CENTER SECTION BALLAST COMPARTMENT. THE FOUR (4) 30" SUCTION INLETS OF EACH GROUP ARE CONNECTED TO A 30" SUCTION CROSS CONNECTION WHICH RUNS ACROSS THE DOCK INSIDE THE PONTOON AND IS CONNECTED TO THE TWO (2) 30" MAIN DE-WATERING PUMPS OPPOSITE OF EACH OTHER, WITH ONE (1) IN EACH SIDE WALL. A NON-RISING STEM TYPE GATE VALVE IS INSTALLED IN THE SUCTION CROSS CONNECTION. THE ARRANGEMENT IS SUCH THAT EACH PONTOON BALLAST COMPARTMENT MAY BE FILLED SEPARATELY; AND EACH PUMP MAY BE USED EITHER TO SEPARATELY PUMP THE BALLAST COMPARTMENTS ON ITS SIDE OF THE SECTION, OR TO PUMP ALL FOUR (4) BALLAST COMPARTMENTS OF THE GROUP.

EACH CENTER TRIMMING TANK IS PROVIDED WITH A 12" DIAMETER FLOODING OPENING IN THE SEPARATING BULKHEADS AND A 2-1/2" VENT PIPE. THE FLOODING OPENING IS PROVIDED WITH A 12" NON-RISING STEM TYPE GATE VALVE WITH EXTENDED STEM, AND IS ARRANGED FOR OPERATION BY A "T" WRENCH FROM THE PONTOON DECK. THIS PERMITS FILLING AND EMPTYING THE TRIMMING TANK INTO THE ADJACENT PONTOON BALLAST COMPARTMENT. CENTRAL SECTION TRIM TANKS ARE NOT NORMALLY USED DURING DOCKING OPERATIONS. THEY ARE USED MAINLY TO INCREASE THE DRAFT OVER THE KEEL BLOCKS, OR TO TRIM THE DOCK.

EACH END SECTION IS SUB-DIVIDED BY WATERTIGHT COMPARTMENTS INTO FOUR (4) BALLAST COMPARTMENTS #1, 2, 3, AND 4 FOR ONE END SECTION, AND #13, 14, 15, AND 16 FOR THE OTHER END SECTION. THE COMPARTMENTS ARE ARRANGED FOR PUMPING AND FLOODING SIMILAR TO EACH GROUP OF CENTER SECTION BALLAST COMPARTMENTS.

FLOODING AND SUCTION INLETS, IN THE END SECTIONS, ARE 18" DIAMETER AND THE SUCTION CROSS CONNECTION IS 20" DIAMETER AND IS CONNECTED TO THE TWO (2) 18" PUMPS WITH ONE ON EACH SIDE OPPOSITE OF EACH OTHER. ALL MAIN SUCTION AND CROSS CONNECTION VALVES ARE NON-RISING STEM TYPE FLANGED PATTERN DOUBLE DISC, GATE TYPE WITH CAST IRON BODIES AND BRONZE MOUNTINGS.

ALL OF THE FLOODING AND DISCHARGE VALVES ARE FITTED FOR ELECTRICAL AND/OR HAND OPERATION, AND ARE GATE TYPE VALVES. THESE ARE RISING STEM TYPE FLANGED PATTERN, DOUBLE DISC VALVES WITH CAST IRON BODIES AND BRONZE MOUNTINGS.

CONTROLS:

ALL PUMPS, FLOODING AND DE-WATERING VALVES ARE OPERATED BY REMOTE CONTROL FROM A CONTROL HOUSE LOCATED ON THE PORT WING

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CONTROLS: CON'T

WALL, OR FROM INDIVIDUAL STATIONS ON THE WING WALLS. THE CONTROL HOUSE HAS ALL OF THE CONTROLS NECESSARY TO CONTROL PUMPS, VACUUM SYSTEMS, AIR COMPRESSORS, FLOODING VALVES, DISCHARGE VALVES, CROSS-OVER VALVES, SUCTION VALVES, DEPTH GAUGES, PERCENT OF VALVE OPENING GAUGES, OPERATING LIGHTS, VOLTMETERS, AMMETERS, COMMUNICATION PANEL, CLINOMETERS TO INDICATE HORIZONTAL AND TRANSVERSE POSITIONS OF VESSEL, ETC.

ELECTRICAL SYSTEMS:

ALL NECESSARY ELECTRICAL POWER IS SUPPLIED FROM SHORE TO VARIOUS CONTROL PANELS, SWITCHBOARDS, ETC. THROUGHOUT THE VESSEL. THE PRIMARY POWER IS 440 VOLT, A.C., 250 AMPS., 3 PHASE, 60 CYCLE.

ADEQUATE LIGHTING IS PROVIDED TO ILLUMINATE THE WING WALLS AND CENTER PONTOON AREAS, AND THE SAFETY DECK AREAS INSIDE THE WING WALLS. ALL ELECTRICAL SYSTEMS ARE IN COMPLIANCE WITH EXISTING ELECTRICAL CODES.

POWER LOADS ON START UP:

	<u>H.P.</u>	<u>KVA</u>
MAIN PUMPS	1200	1150
CAPSTANS	240	240
MISCELLANEOUS PUMPS	27	30
VALVE MOTORS	150	170
SHIPS SERVICE		600
LIGHTING AND CONVERSION RECEPTACLES		150

RECEPTACLES FOR SHORE POWER:

FIVE (5) 400 AMP., 3 POLE, 460 VOLT RECEPTACLES EACH SIDE.
THREE (3) CONDUCTOR WIRE ON EACH SIDE.

RECEPTACLES FOR SHIP SERVICE POWER:

TWO (2) 400 AMP., 3 PHASE, 460 VOLT RECEPTACLES EACH SIDE.

WELDING RECEPTACLES:

TWENTY (20) 200 AMP., 4 POLE, 460 VOLT RECEPTACLES.

SWITCHBOARDS:

TWO (2) ON EACH SIDE CONNECTED BY CROSS-TIE BUS, 440 VOLT, WITH CIRCUIT BREAKERS ON EACH MAIN BOARD. THERE ARE A NUMBER OF POWER DISTRIBUTION PANELS INSTALLED FOR 440 VOLT A.C. POWER DISTRIBUTION TO ALL NEEDED LOCATIONS.

FLOOD LIGHTS:

TWO (2) FLOODS AT FORWARD END OF PORT WALL. ONE (1) FLOOD AT FORWARD END OF STARBOARD WALL. APPROXIMATELY 16" DIAMETER, 1,000 WATT.

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FLOOD LIGHTS: COM'T

FIFTEEN (15) 100 WATT LIGHTS ALONG EACH SIDE, WITH FIFTEEN (15) 500 WATT LIGHTS SHINING ONTO OUTFITTING PIER ALONG PORT WALL.

TRANSFORMERS:

THREE (3) 75 KVA, 3 PHASE, 60 CYCLE, PRIMARY VOLTAGE 480 VOLTS, SECONDARY VOLTAGE 120/208 VOLTS, 4 WIRE DELTA CONNECTED EACH SIDE.

LIGHTING SYSTEM SUPPLY:

208/120 VOLT AC SYSTEM TO LIGHTING PANELS FOR ALL DOCK LIGHTING INCLUDING FLOODS, RED EXIT LIGHTS, TOP DECK LIGHTS, SAFETY DECK LIGHTS, COMMUNICATIONS, ETC. THERE ARE VARIOUS CIRCUIT BREAKER PANELS AROUND THE VESSEL TO AID IN PREVENTION OF OVERLOADING AND POSSIBLE SHORT CIRCUITS.

GAS SERVICE:

NATURAL GAS AND OXYGEN PIPE LINES ARE INSTALLED WITH OUTLETS AT CONVENIENT LOCATIONS ON EACH WING WALL.

SAFETY DECK COMPARTMENTS AND EQUIPMENT:

COMPARTMENT 43 - FRAME 1 TO FRAME 8

USED FOR LINE STORAGE.

ONE (1) ESCAPE HATCH AND LADDER WING WALL DECK.

ONE (1) BOLTED AND GASKETED MANHOLE COVER TO LOWER BALLASTING AREA.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

TWO (2) 8" VENT LINES PASS THROUGH TO TOP DECK.

THE COMPARTMENT HAS ONE (1) 4" STEAM LINE, ELECTRICAL OUTLETS, VACUUM LINES, ETC. PASSING THROUGH.

COMPARTMENT 41 - FRAME 8 TO FRAME 20

ONE (1) VENT FAN.

TWO (2) BLOWER CONTROLS.

MAIN PUMP STARTER CONTROL BOX.

TWO (2) VALVE CONTROL MOTORS.

ONE (1) VACUUM PUMP AND MOTOR.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

ONE (1) WELDER CONTROL PANEL.

ONE (1) LADDER AND ESCAPE HATCH TO TOP DECK.

TWO (2) BOLTED AND GASKETED MANHOLE COVERS AND MANHOLES TO LOWER BALLASTING AREA.

ONE (1) 4" STEAM LINE AND BRANCHES, SEA WATER LINES, FRESH WATER LINES, AIR LINES, AND ELECTRICAL OUTLETS.

USED FOR ROPE STORAGE.

COMPARTMENT 39 - FRAME 20 TO FRAME 31

THREE (3) VALVE CONTROL MOTORS.

THREE (3) TRANSFORMERS, STEP DOWN TYPE, 460/208/120 VOLT.

ONE (1) CLOSED FRONT 440 VOLT, 3 PHASE, A.C. ELECTRICAL SWITCHBOARD.

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SAFETY DECK COMPARTMENTS AND EQUIPMENT: CON'T

COMPARTMENT 39 - FRAME 20 TO FRAME 31: CON'T

TWO (2) CLOSED FRONT CIRCUIT BREAKERED LIGHTING PANELS.
ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.
ONE (1) 100 H.P. INDUCTION MOTOR AND GEARS FOR CAPSTAN WITH CONTROLS, STARTERS, ETC.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
ONE (1) HANHOLE WITH GASKETED AND BOLTED COVER TO LOWER BALLASTING AREAS.
ONE (1) AIR TYPE CIRCUIT BREAKER.
ONE (1) SAFETY SWITCH.
TWO (2) FLOOD LIGHT CONTROLLERS.
ELECTRICAL OUTLETS, STEAM LINES, AIR LINES, AND WATER LINES.
TWO (2) 8" AIR VENT LINES.

COMPARTMENT 37 - FRAME 31 TO FRAME 42

ONE (1) WELDER CONTROL PANEL.
ONE (1) CAPSTAN CONTROLLER AND STARTER.
ONE (1) 100 H.P. INDUCTION MOTOR AND GEARS FOR CAPSTAN.
TWO (2) VALVE CONTROL MOTORS.
ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.
TWO (2) 8" AIR VENTS.
STEAM LINES, AIR LINES, WATER LINES, ELECTRICAL OUTLETS, ETC.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
ONE (1) HANHOLE WITH DOGGED AND GASKETED COVER TO THE LOWER BALLASTING AREA.

COMPARTMENT 35 - FRAME 42 TO FRAME 54

ONE (1) VACUUM PUMP AND VACUUM LINE, 5 H.P., 440 VOLT.
ONE (1) MAIN PUMP INDUCTION MOTOR, 200 H.P., 440 VOLT.
FOUR (4) VALVE CONTROLLERS.
ONE (1) MOTOR CONTROLLER FOR MAIN PUMP.
ONE (1) LUBE OIL STARTER.
ONE (1) LUBE OIL PUMP.
ONE (1) WELDER SWITCH CONTROL PANEL.
ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.
ONE (1) ELECTRIC BLOWER WITH BLOWER CONTROL PANEL.
ONE (1) CLOSED FRONT LIGHTING PANEL WITH CIRCUIT BREAKERS.
THREE (3) 8" AIR VENT LINES.
STEAM LINES, AIR LINES, VACUUM LINES, LUBE OIL LINE, WATER LINES, ELECTRICAL OUTLETS, ETC.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
TWO (2) HANHOLES WITH BOLTED AND GASKETED COVERS TO LOWER BALLASTING AREAS.
TWO (2) WELDER SWITCH CONTROL PANELS.

COMPARTMENT 33 - FRAME 54 TO FRAME 61

ONE (1) WELDER SWITCH CONTROL PANEL.
STEAM LINES, AIR LINES, WATER LINES, VACUUM LINES, ELECTRICAL OUTLETS, ETC.
TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
ONE (1) HANHOLE WITH DOGGED AND GASKETED COVER TO LOWER BALLASTING AREA.
USED AS A ROPE STORAGE AREA.

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SAFETY DECK COMPARTMENTS AND EQUIPMENT: CON'T.

COMPARTMENT 44 - FRAME 1 TO FRAME 8

USED FOR LINE STORAGE.

ONE (1) ESCAPE HATCH AND LADDER WING WALL DECK.

ONE (1) BOLTED AND GASKETED MANHOLE COVER TO LOWER BALLASTING AREA.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

TWO (2) 8" VENT LINES PASS THROUGH TO TOP DECK.

THE COMPARTMENT HAS ONE (1) 4" STEAM LINE, ELECTRICAL OUTLETS, VACUUM LINES, ETC. PASSING THROUGH.

COMPARTMENT 42 - FRAME 8 TO FRAME 20

ONE (1) VENT FAN.

TWO (2) BLOWER CONTROLS.

MAIN PUMP STARTER CONTROL BOX.

TWO (2) VALVE CONTROL MOTORS.

ONE (1) VACUUM PUMP AND MOTOR.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

ONE (1) WELDER CONTROL PANEL.

ONE (1) LADDER AND ESCAPE HATCH TO TOP DECK.

TWO (2) BOLTED AND GASKETED MANHOLE COVERS AND MANHOLES TO LOWER BALLASTING AREA.

ONE (1) 4" STEAM LINE AND BRANCHES, SEA WATER LINES, FRESH WATER LINES, AIR LINES, AND ELECTRICAL OUTLETS.

USED FOR ROPE STORAGE.

4" POTABLE WATER LINE AND METER.

COMPARTMENT 40 - FRAME 20 TO FRAME 31

THREE (3) VALVE CONTROL MOTORS.

THREE (3) TRANSFORMERS, STEP DOWN TYPE, 460/208/120 VOLT.

ONE (1) CLOSED FRONT 440 VOLT, 3 PHASE, A.C. ELECTRICAL SWITCHBOARD.

TWO (2) CLOSED FRONT CIRCUIT BREAKERED LIGHTING PANELS.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

ONE (1) 100 H.P. INDUCTION MOTOR AND GEARS FOR CAPSTAN WITH CONTROLS, STARTERS, ETC.

ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.

ONE (1) MANHOLE WITH GASKETED AND BOLTED COVER TO LOWER BALLASTING AREAS.

ONE (1) AIR TYPE CIRCUIT BREAKER.

ONE (1) SAFETY SWITCH.

TWO (2) FLOOD LIGHT CONTROLLERS.

ELECTRICAL OUTLETS, STEAM LINES, AIR LINES, AND WATER LINES.

TWO (2) 8" AIR VENT LINES.

4" POTABLE WATER LINE.

FOUR (4) WATER LEVEL RECORDING DEVICES.

ONE (1) 440 VOLT CIRCUIT BREAKER.

COMPARTMENT 38 - FRAME 31 TO FRAME 42

ONE (1) WELDER CONTROL PANEL.

ONE (1) CAPSTAN CONTROLLER AND STARTER.

ONE (1) 100 H.P. INDUCTION MOTOR AND GEARS FOR CAPSTAN.

TWO (2) VALVE CONTROL MOTORS.

ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.

TWO (2) 8" AIR VENTS.

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SAFETY DECK COMPARTMENTS AND EQUIPMENT: CON'T

COMPARTMENT 38 - FRAME 31 TO FRAME 42: CON'T

STEAM LINES, AIR LINES, WATER LINES, ELECTRICAL OUTLETS, ETC.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
ONE (1) MANHOLE WITH DOGGED AND GASKETED COVER TO THE LOWER BALLASTING AREA.
4" POTABLE WATER LINE.
THREE (3) STEEL LOCKERS.

COMPARTMENT 36 - FRAME 42 TO FRAME 54

ONE (1) VACUUM PUMP AND VACUUM LINE, 5 H.P., 440 VOLT.
ONE (1) MAIN PUMP INDUCTION MOTOR, 200 H.P., 440 VOLT.
FOUR (4) VALVE CONTROLLERS.
ONE (1) MOTOR CONTROLLER FOR MAIN PUMP.
ONE (1) LUBE OIL STARTER.
ONE (1) LUBE OIL PUMP.
ONE (1) WELDER SWITCH CONTROL PANEL.
ONE (1) 5# CO-2 BOTTLE, TESTED OCTOBER 20, 1971.
ONE (1) ELECTRIC BLOWER WITH BLOWER CONTROL PANEL.
ONE (1) CLOSED FRONT LIGHTING PANEL WITH CIRCUIT BREAKERS.
THREE (3) 8" AIR VENT LINES.
STEAM LINES, AIR LINES, VACUUM LINES, LUBE OIL LINE, WATER LINES, ELECTRICAL OUTLETS, ETC.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
TWO (2) MANHOLES WITH BOLTED AND GASKETED COVERS TO LOWER BALLASTING AREAS.
TWO (2) WELDER SWITCH CONTROL PANELS.
4" POTABLE WATER LINE.
FOUR (4) WATER LEVEL RECORDING DEVICES.

COMPARTMENT 34 - FRAME 54 TO FRAME 61

ONE (1) WELDER SWITCH CONTROL PANEL.
STEAM LINES, AIR LINES, WATER LINES, VACUUM LINES, ELECTRICAL OUTLETS, ETC.
TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO TOP DECK.
ONE (1) MANHOLE WITH DOGGED AND GASKETED COVER TO LOWER BALLASTING AREA.
USED AS A ROPE STORAGE AREA.
ONE (1) INGERSOLL-RAND RECIPROCATING AIR COMPRESSOR, OPERATED BY AN ELECTRIC MOTOR.
ONE (1) AIR TANK.
TWO (2) COMMUNICATION CABINETS.

FORWARD END COMPARTMENT, PORT - FRAME "A" TO FRAME "D"

FIVE (5) DEPTH RECORDING DEVICES.
SIX (6) VALVE CONTROL MOTORS.
ONE (1) CAPSTAN MOTOR AND GEARS, 30 H.P., 440 VOLT, 3 PHASE, 60 CYCLE.
ONE (1) 5# CO-2 BOTTLE, TESTED 1967.
ONE (1) CAPSTAN CONTROL AND STARTER PANEL.
ONE (1) LUBE MOTOR STARTER.
ONE (1) MAIN PUMP MOTOR WITH CONTROL PANEL, 100 H.P., 440 VOLT, 3 PHASE, 60 CYCLE.
ONE (1) LOUDSPEAKER.

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SAFETY DECK COMPARTMENTS AND EQUIPMENT: CON'T

FORWARD END COMPARTMENT, PORT - FRAME "A" TO FRAME "D": CON'T

3" VACUUM LINE, ONE (1) FIRE ALARM STATION, ELECTRICAL
OUTLETS, STEAM LINE, WATER LINES, AIR LINES, ETC.
TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO MAIN DECK.
ONE (1) MANHOLE WITH BOLTED AND GASKETED COVER TO LOWER
BALLAST AREA.

AFT END COMPARTMENT, PORT - FRAME "A" TO FRAME "D"

FIVE (5) DEPTH RECORDING DEVICES.
SIX (6) VALVE CONTROL MOTORS.
ONE (1) CAPSTAN MOTOR AND GEARS, 30 H.P., 440 VOLT, 3 PHASE,
60 CYCLE.
ONE (1) 5# CO-2 BOTTLE, TESTED 1967.
ONE (1) CAPSTAN CONTROL AND STARTER PANEL.
ONE (1) LUBE MOTOR STARTER.
ONE (1) MAIN PUMP MOTOR WITH CONTROL PANEL, 100 H.P., 440
VOLT, 3 PHASE, 60 CYCLE.
ONE (1) LOUDSPEAKER.
3" VACUUM LINE, ONE (1) FIRE ALARM STATION, ELECTRICAL
OUTLETS, STEAM LINE, WATER LINES, AIR LINES, ETC.
TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO MAIN DECK.
ONE (1) MANHOLE WITH BOLTED AND GASKETED COVER TO LOWER
BALLAST AREA.

FORWARD END COMPARTMENT, STARBOARD - FRAME "A" TO FRAME "D"

SIX (6) VALVE CONTROL MOTORS.
ONE (1) CAPSTAN MOTOR AND GEARS, 30 H.P., 440 VOLT, 3 PHASE,
60 CYCLE.
ONE (1) 5# CO-2 BOTTLE, TESTED 1967.
ONE (1) CAPSTAN CONTROL AND STARTER PANEL.
ONE (1) LUBE MOTOR STARTER.
ONE (1) MAIN PUMP MOTOR WITH CONTROL PANEL, 100 H.P., 440
VOLT, 3 PHASE, 60 CYCLE.
ONE (1) LOUDSPEAKER.
3" VACUUM LINE, ONE (1) FIRE ALARM STATION, ELECTRICAL
OUTLETS, STEAM LINE, WATER LINES, AIR LINES, ETC.
TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO MAIN DECK.
ONE (1) MANHOLE WITH BOLTED AND GASKETED COVER TO LOWER
BALLAST AREA.

AFT END COMPARTMENT, STARBOARD - FRAME "A" TO FRAME "D"

SIX (6) VALVE CONTROL MOTORS.
ONE (1) CAPSTAN MOTOR AND GEARS, 30 H.P., 440 VOLT, 3 PHASE,
60 CYCLE.
ONE (1) 5# CO-2 BOTTLE, TESTED 1967.
ONE (1) CAPSTAN CONTROL AND STARTER PANEL.
ONE (1) LUBE MOTOR STARTER.
ONE (1) MAIN PUMP MOTOR WITH CONTROL PANEL, 100 H.P., 440
VOLT, 3 PHASE, 60 CYCLE.
ONE (1) LOUDSPEAKER.
3" VACUUM LINE, ONE (1) FIRE ALARM STATION, ELECTRICAL
OUTLETS, STEAM LINE, WATER LINES, AIR LINES, ETC.

CASE NO. 80-13075

SAFETY DECK COMPARTMENTS AND EQUIPMENT: CON'T

AFT END COMPARTMENT, STARBOARD - FRAME "A" TO FRAME "D": CON'T

TWO (2) 8" AIR VENT LINES.
ONE (1) ESCAPE HATCH AND LADDER TO MAIN DECK.
ONE (1) MANHOLE WITH BOLTED AND GASKETED COVER TO LOWER BALLAST AREA.

ALL CENTRAL PONTOON COMPARTMENTS ARE EQUIPPED WITH DOGGED AND GASKETED WATERTIGHT DOORS BETWEEN.

EACH WING WALL HAS TWO (2) ENTRANCE WAYS AND STAIR WAYS DOWN FROM THE TOP DECK TO THE SAFETY DECK IN ADDITION TO THE ESCAPE HATCHES AND LADDERS NOTED.

EACH END SECTION IS ENTERED BY MEANS OF THE ESCAPE HATCHES AND LADDERS NOTED PREVIOUSLY. ALL BALLAST COMPARTMENTS HAVE BOLTED AND GASKETED MANHOLES WITH COVERS FOR ACCESS FROM DRYDOCK AREA.

COMMUNICATIONS SYSTEM:

A SELF-CONTAINED COMMUNICATIONS SYSTEM IS INSTALLED WITH CONNECTIONS TO THE CONTROL HOUSE, EACH END COMPARTMENT AND TO EACH SAFETY COMPARTMENT, AS WELL AS THREE (3) LOCATIONS ON EACH WING WALL. ALL ARE EQUIPPED WITH SPEAKERS AND PRESS TO TALK BACK SPEAKERS. IN ADDITION, THERE ARE TWO (2) LOUD HALLER STATIONS ON EACH WING WALL.

FIRE FIGHTING EQUIPMENT:

THE AREA IS SERVED BY THE CITY OF PORTLAND FIRE BUREAU, BOTH LAND AND WATER.

IN ADDITION, THE DRYDOCK HAS TWO (2) MONITORS ON THE STARBOARD WING WALL AND FOUR (4) ON THE PORT WING WALL.

EACH COMPARTMENT HAS ONE (1) 5# CO-2 BOTTLE, ALL TESTED OCTOBER 20, 1971, FOR A TOTAL OF FIFTEEN (15) 5# CO-2 BOTTLES.

THERE IS 100 FEET OF 2-1/2" FIRE HOSE ON EACH WING WALL IN ADDITION TO THE MONITORS. THIS HOSE CAN BE CONNECTED TO ANY ONE OF THE FIFTEEN (15) 2-1/2" OUTLETS ON EACH WING WALL.

LIFE RINGS:

THERE ARE FIVE (5) LIFE RINGS AND LINE ALONG EACH WING WALL.

GANG PLANKS AND LADDERS:

THE VESSEL IS CONNECTED TO SHORE WITH PORTABLE WALKWAYS TO EACH WING WALL AND ONE (1) PORTABLE WALKWAY TO THE DRYDOCK.

THE DRYDOCK WING WALLS HAVE SEVERAL STEEL LADDERS WELDED TO ITS SURFACES FOR ACCESS TO THE DRYDOCK AND TO THE PIER, AND EACH BALLAST COMPARTMENT HAS A STEEL LADDER LEADING DOWN FROM THE SAFETY DECK TO THE TANK INTERIOR.

CASE NO. 80-13075

THE DEPTH OF THE RIVER UNDER THE DOCK IS REPORTED TO BE APPROXIMATELY 40'. IT WAS REPORTED THAT SILTING OF THE BASIN HAS NOT OCCURRED.

PERIODIC EXAMINATIONS OF THE UNDERWATER BODY OF THE DRYDOCK AND THE BASIN BELOW ARE CARRIED OUT BY DIVERS TO CHECK FOR SILT BUILD UP, CORROSION, POSSIBLE DAMAGE FROM SUBMERGED OBJECTS, ETC.

VISUAL EXAMINATION OF THE NORMALLY SUBMERGED AREAS OF THE SIDES AND ENDS WAS CARRIED OUT AT THE TIME OF THIS SURVEY. EXPOSED AREAS OF THE BOTTOM WERE ALSO INSPECTED AT THIS TIME. DURING THE COURSE OF THIS SURVEY, THE PROTECTIVE COATING ON THE SIDES AND ENDS WAS FOUND TO BE VERY LIGHTLY BLISTERED IN VERY SMALL LOCAL AREAS. IN THE RECESSED AREAS ALONG EACH SIDE USED IN DRYDOCKING THE VESSEL UPON ITSELF, THE BOTTOM, SIDES, AND ENDS IN THESE FOUR (4) AREAS WERE HEAVILY BLISTERED.

THE VISIBLE EXTERNAL COATING ON THE DRYDOCK WAS IN SATISFACTORY CONDITION AT THE TIME OF THIS SURVEY, EXCEPT IN THE BLISTERED AREAS WHERE PITTING WAS NOTED.

IT WAS REPORTED THAT THIS DRYDOCK IS OWNED BY THE UNITED STATES NAVY, AND THAT THE PORT OF PORTLAND DOES WHATEVER IS ASKED BY THE UNITED STATES NAVY TO MAINTAIN THE VESSEL. IT WAS FURTHER REPORTED THAT THE UNITED STATES NAVY WILL REQUIRE THE VESSEL TO BE DRYDOCKED WITHIN THE NEXT YEAR.

THE ENTIRE UNDERWATER BODY OF THE VESSEL WAS SURVEYED BY A DIVER ON MAY 12, 1971, WHO SUBMITTED THE FOLLOWING REPORTS:

- I MADE AN UNDERWATER EXAMINATION OF THE UNDERWATER PORTION OF THE ABOVE NAMED DRYDOCK, STARTING AT THE BOW AND MOVING TOWARD THE STERN IN SIX FOOT INCREMENTS ALONG A ROPE. THE ROPE WAS MOVED AFTER EACH PASS BY MEN ON THE SURFACE.

IRREGULARITIES IN THE CONDITION OF THE DRYDOCK ARE AS FOLLOWS:

1. THE BOW AND STERN APRONS ARE GENERALLY IN GOOD CONDITION EXCEPT FOR PERIODIC RUST SPOTS.
2. APPROXIMATELY EIGHTY FEET ASTERN FROM THE BOW NEAR THE CENTER OF THE PONTOON THERE IS A SET-UP APPROXIMATELY ONE AND ONE-HALF INCHES DEEP, TWO FEET WIDE AND THREE FEET LONG.
3. APPROXIMATELY THREE-HUNDRED FIFTY-FIVE FEET ASTERN FROM THE BOW NEAR THE CENTER OF THE DRYDOCK THERE IS A DENT APPROXIMATELY ONE FOOT IN DIAMETER AND ONE INCH DEEP.
4. APPROXIMATELY FIVE-HUNDRED FEET ASTERN FROM THE BOW NEAR THE CENTER OF THE DRYDOCK THERE IS A DENT APPROXIMATELY ONE FOOT IN DIAMETER AND ONE INCH DEEP.

CASE NO. 80-13075

5. THE AREA IN WAY OF THE BLOCKS USED DURING THE LAST DRYDOCKING WAS FOUND TO BE RUSTING AND SOME PITTING WAS VISIBLE AROUND THE CIRCUMFERENCE OF EACH BLOCK.
6. APPROXIMATELY SIXTY FEET ASTERN OF THE BOW NEAR THE CENTER OF THE DRYDOCK THERE ARE TWO THREE FOOT CIRCLES OF RUST WHICH APPEAR TO HAVE BEEN MADE BY WELDING ON THE INSIDE OF THE DRYDOCK. THERE IS ALSO A SIMILAR RING OF RUST TWENTY FEET AFT OF THE BOW.

THE ONLY DETECTABLE DIFFERENCE IN THE CONDITION OF THE DRYDOCK SINCE MY LAST SURVEY IN NOVEMBER OF 1967 IS THE SLIGHT PITTING AROUND THE CIRCUMFERENCE OF THE AREAS WHERE THE BILGE AND KEEL BLOCKS RESTED DURING THE LAST DRYDOCKING. THE DRYDOCKING SLOTS ARE ALSO RUSTING.

(s) W. K. DYE

ALL INTERNAL AREAS ON THE SAFETY DECK WERE WELL COATED AND WELL MAINTAINED. ALL INTERNAL AREAS OF BALLAST TANKS INSPECTED WERE COATED WITH BLACK BITUMASTIC PAINT. ALL EXTERNAL AREAS ABOVE WATER WERE WELL COATED. ALL VISIBLE UNDERWATER AREAS WERE COATED WITH A ZINC BASE PAINT WITH A COAT OF BLACK BITUMASTIC OVER.

MOORAGE OF DRYDOCK:

THE VESSEL IS MOORED ON THE OFFSHORE SIDE OF THE OUTFITTING PIER AT SWAN ISLAND IN PORTLAND, OREGON. THE OUTFITTING PIER IS CONSTRUCTED OF STEEL AND CONCRETE WITH WOODEN FENDERS AND PROTECTION TIMBERS. IT WAS REPORTED THAT THIS PIER WAS ORIGINALLY CONSTRUCTED DURING WORLD WAR II, BUT WAS EXTENSIVELY REBUILT IN 1962.

THE DRYDOCK IS MOORED PERMANENTLY ABREAST THE OFFSHORE SIDE OVER THE LAST 650' OF THE OUTFITTING PIER.

DRYDOCK #2, OF ALL WOOD CONSTRUCTION, 514' LONG, 91.5' WIDE, WITH A 14,000 TON LIFTING CAPACITY IS MOORED ALONG THE WEST SIDE OF "YFD-69".

RECOMMENDATIONS:

1. THE HEAVY SCALE NOTED IN THE RECESSED AREAS ALONG BOTH SIDES TO BE REMOVED AND RECOATED WITH A PROTECTIVE COATING AS SOON AS PRACTICAL.
2. THE UNDERWATER BODY TO BE FURTHER SURVEYED WHEN THE VESSEL IS DRYDOCKED.
3. IF THE VESSEL IS NOT DRYDOCKED WITHIN THE NEXT YEAR, IT IS TO BE CAREENED TO AS MAXIMUM AN ANGLE AS POSSIBLE TO PORT AND TO STARBOARD FOR FURTHER EXAMINATION OF ITS OUTER BOTTOM SURFACES.

GENERAL:

THE VARIOUS ALARM AND ALTERNATE SYSTEMS ARE TEST OPERATED PERIODICALLY.

CASE NO. 80-13075

GENERAL: CON'T

OPERATIONAL TECHNIQUES AND PROCEDURES OF THE FACILITY ARE FAMILIAR TO THE DOCK MASTER, ASSISTANT DOCK MASTER, DOCK MASTER UNDERSTUDY AND THREE (3) ELECTRICIANS, WHICH PROVIDES A SUITABLE DEPTH OF KNOWLEDGE AND EXPERIENCE FOR PROPER OPERATION OF THE DRYDOCK.

THE PORT OF PORTLAND HAS A VERY COMPREHENSIVE PREVENTATIVE MAINTENANCE PROGRAM IN EFFECT CONTINUOUSLY. IT WAS REPORTED THAT THE PORT OF PORTLAND IS REQUIRED TO SPEND \$25,000.00 PER YEAR TO MAINTAIN THE DRYDOCK BY THE UNITED STATES NAVY. ANY PART OF THE \$25,000.00 NOT SPENT ON MAINTENANCE MUST BE PAID TO THE UNITED STATES NAVY.

A SUBMERGENCE TEST WAS CONDUCTED BY THE PORT OF PORTLAND FOR THE UNITED STATES NAVY ON MAY 17, 1971.

THE DOCK WAS SUBMERGED TO 25'7" OVER THE KEEL BLOCKS AND HELD FOR THIRTY (30) MINUTES.

FLOOD VALVES OPENED WITH 18" FREEBOARD AT 0850 HOURS.

FLOOD VALVES CLOSED WITH 25'7" OF WATER OVER THE KEEL BLOCKS AT 0915 HOURS.

PUMPS STARTED 25'7" OF WATER OVER THE KEEL BLOCKS AT 0950 HOURS.

PUMPS STOPPED WITH 18" FREEBOARD AT 1020 HOURS.

THE DOCK EMERGED WITHOUT SLUGGISHNESS DURING SUBMERGENCE. NO TRIMMING WAS REQUIRED TO KEEP THE DOCK LEVEL.


IT WAS REPORTED THAT THE BASIN UNDER THE DOCK WAS SOUNDED ON MAY 11, 1971, AND THE BASIN WAS FOUND TO BE 65'6" DEEP. THIS WOULD INDICATE THAT THERE IS APPROXIMATELY 40' OF WATER BELOW THE KEEL WHEN SUBMERGED TO 25'7".

VALUATION:

ESTIMATED DEPRECIATED VALUE. \$2,900,000.00
ESTIMATED REPLACEMENT VALUE. \$7,400,000.00

AS FAR AS MAY BE ASCERTAINED FROM A GENERAL EXAMINATION OF THIS VESSEL AFLOAT IT IS THE OPINION OF THE UNDERSIGNED, AS HEREINAFTER QUALIFIED, THAT THE VESSEL WILL BE IN SATISFACTORY CONDITION, AND IS SUITABLE FOR OPERATION IN THE INTENDED SERVICE UPON COMPLIANCE WITH THE ABOVE RECOMMENDATIONS. THIS EXAMINATION HAS BEEN MADE WITHOUT MAKING REMOVALS, OR OPENING UP TO EXPOSE PARTS ORDINARILY CONCEALED, OR TESTING FOR TIGHTNESS, OR TRYING OUT MACHINERY, AND IS SUBJECT TO ANY CONDITIONS WHICH WOULD HAVE BEEN REVEALED IF SUCH PROCEDURES HAD BEEN ACCOMPLISHED; FURTHER, NO DETERMINATION OF STABILITY CHARACTERISTICS OR INHERENT STRUCTURAL INTEGRITY HAS BEEN MADE, AND NO OPINION IS EXPRESSED WITH RESPECT THERETO.

SURVEY MADE WITHOUT PREJUDICE.


C. L. HARRIS
SURVEYOR

Carl Hoff

December 17, 1969

Supervisor of Shipbuilding, Conversion & Repair
13th Naval District
2400 11th Avenue S. W.
Seattle, Washington 98134

Gentlemen:

Reference is made to our contract NOBs-4315 for lease of YFD-69. In accordance with Article 6(c) we wish to submit the following three items for approval as major rebuilding, replacement or repair.

1. 5 - 500 MCM feeder cables 90 feet in length
2. Complete replacement of wooden deck
3. Sandblast and paint steel deck

The 5 feeder cables complete with plug-in attachments were received with the dry dock at the time the Port took over the Kaiser, Inc. lease and were probably the original cables furnished with the dock in 1944. Recent megger readings indicated that failure could occur at any time and therefore it is requested that approval be given to initiate procurement immediately. The estimated cost is \$10,000.

As a result of the annual inspection performed in October, 1969 it was determined by the inspection team that the pontoon deck indicates a requirement for painting. Subsequent to receipt of the report, an inspection was made of the wooden deck which must be removed in order to perform the maintenance recommended and it was found that the wooden deck would be lost as a result of the removal due to its extremely deteriorated condition. This deck was received with the dry dock and was completely removed, inspected, and reinstalled at the time the Port took over the lease in 1949. This wood has now reached a condition that requires a complete replacement if the deck is disturbed for painting since normal operations cannot be performed without the wooden deck spanning the areas between the bilge block runners.

A less costly alternative to replacing the wooden deck would be for the Navy to authorize the complete removal of the bilge block runners as shown on the

PSY500006419

Supervisor of Shipbuilding,
Conversion & Repair
December 17, 1969
Page 2

attached sketch. As you know, the Port eliminated the runners in the design of dry dock #3 and has found that the completely clear deck has performed in a very satisfactory manner. We would propose constructing a set of bilge blocks similar to those used on our dry dock #3, although we realize this would be a major departure from the original 1940 YFD design. We feel that by performing this alternate maintenance procedure, a start could be made on the improvement of operations on all of the large floating dry docks owned and operated by the Navy throughout the world. Should there be a requirement for replacement runners on some of your other docks where pull blocks are considered necessary, the units removed from YFD-69 could be shipped as replacements since they are in near perfect condition and could result in considerable savings to the Navy on such repairs.

As indicated above, the annual inspection report indicates that the pontoon deck is rusted and during the next 12 months recommends that the wood decking, blocks and debris be removed and the decks sandblasted and preserved with one coat of inorganic zinc, one tie coat and one color coat at an estimated cost of \$85,000. Both the type of material and the scope of this project places it in the category of a major repair maintenance item. Our records indicate that the deck was last painted in 1954 with one coat of zinc chromate and one coat of black deck paint. A coat of inorganic zinc at this time will provide a fine protection system for the remaining life of the dry dock. According to our records, however, there has been little, if any, deterioration of the plate thickness on the deck as indicated by the attached table. If your office feels that this work is advisable, we are prepared to issue specifications covering the painting along with either alternate of item 2 above to be accomplished as a major rebuilding, replacement or repair item.

If you have any questions regarding this matter, we would be happy to have you visit us here in Portland, or we can visit your office with additional details.

Very truly yours,

THE PORT OF PORTLAND
ORIGINAL SIGNED BY
A. J. HEINEMAN

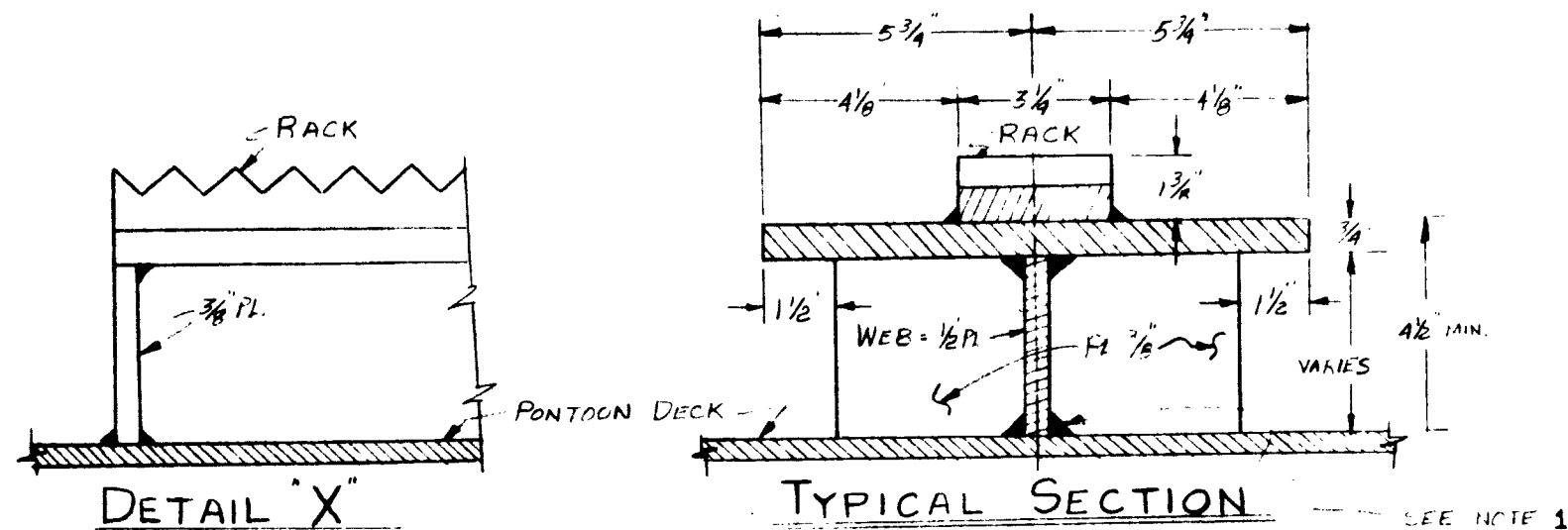
A. J. Heineman
Assistant General Manager

Attachments - 3

cc: Mr. H. R. Benson

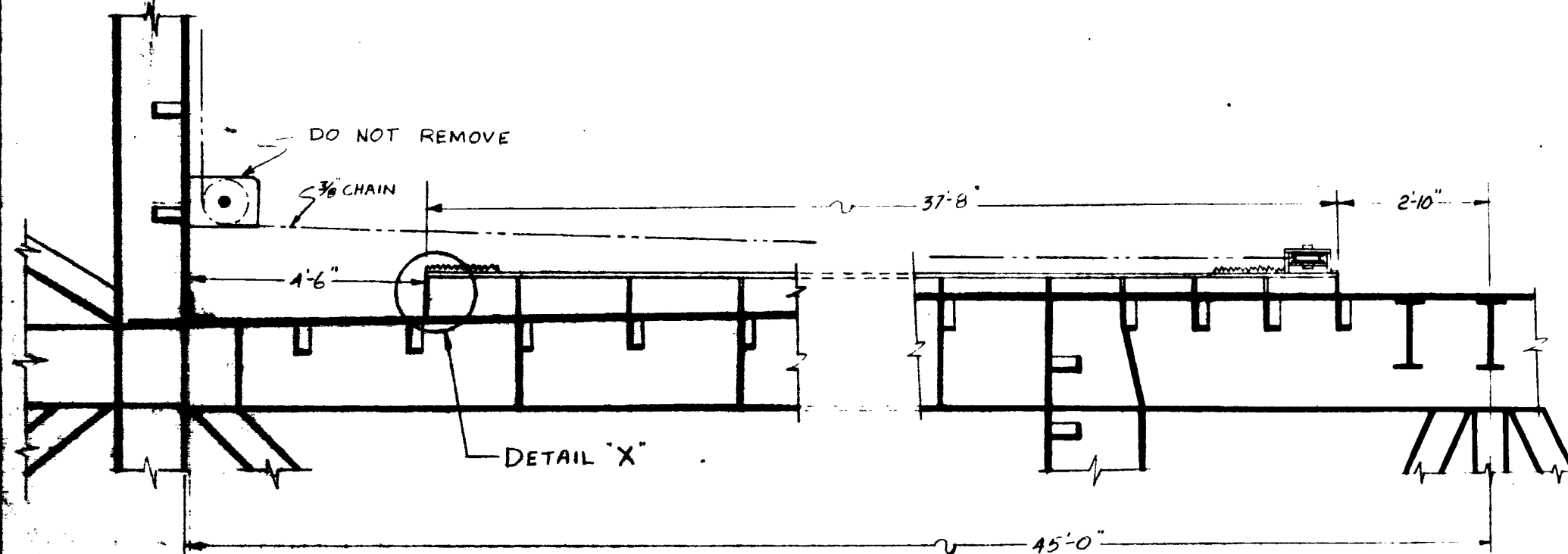
bcc: Ogden Beeman
E. W. Bauer
Lofton L. Tatum
Carl Propp ✓

PSY500006420

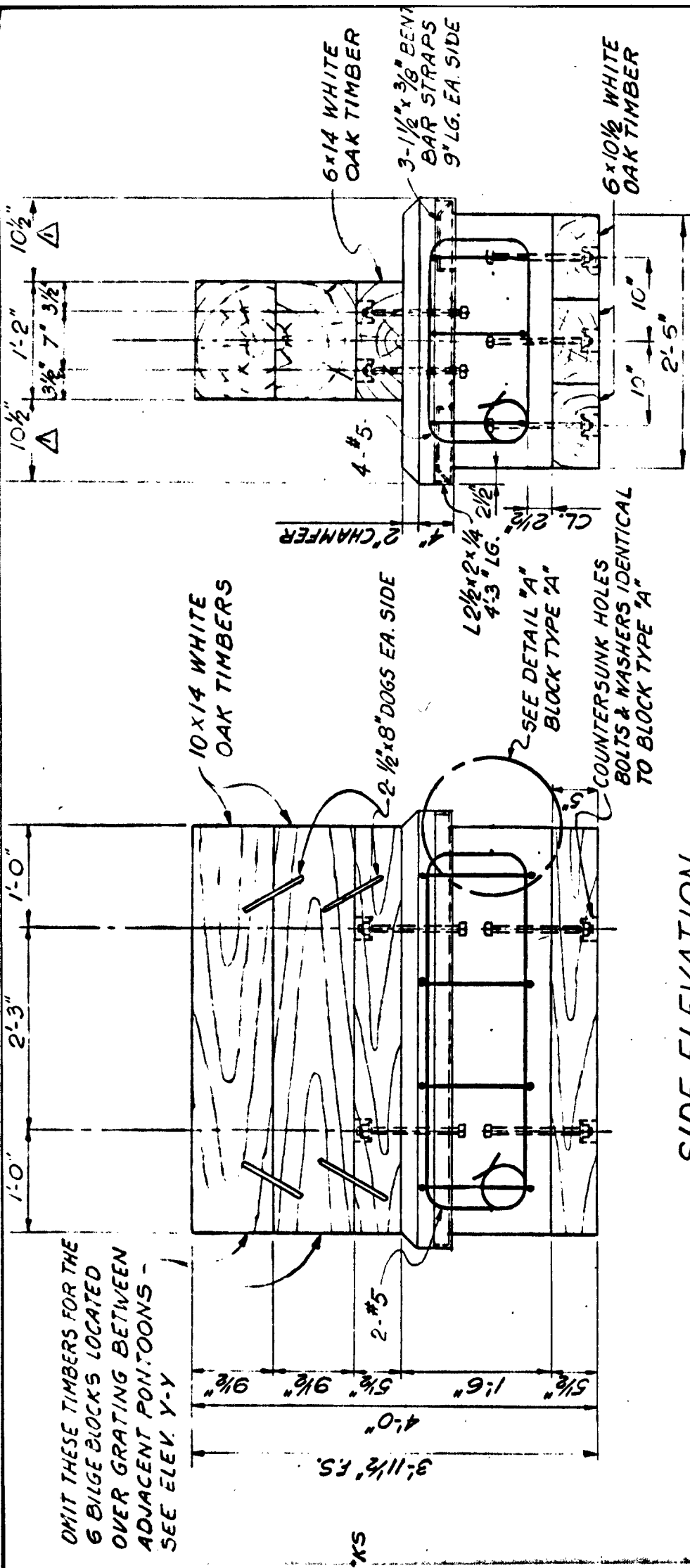


NOTES:

1. Remove all bilge block runners from main deck. After removal, flush off all burrs and leave deck in a smooth condition. Weld up and grind smooth any undercutting which might result from runner removal.
2. Build ramps up to and over the two (2) control cable race ways located at the center of the drydock running athwartships.
3. The surfaces damaged by removal of the runners shall be cleaned by a light sandblast sweep and one (1) coat of primer applied. One (1) coat of oil base paint shall be applied with the final coat matching the color of the surrounding areas.

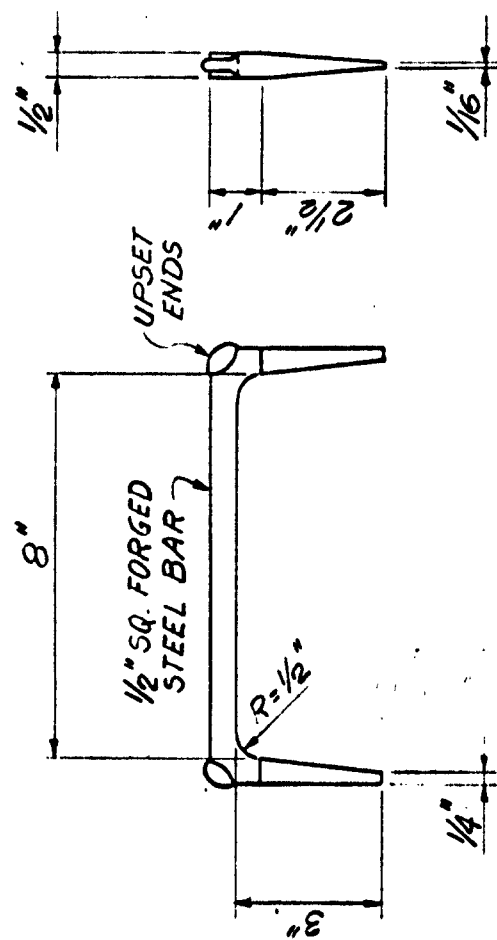


THE PORT OF PORTLAND	
YFD-69 BILGE BLOCK RUNNERS- REMOVAL OF	
DESIGNED BY R. B. BURNS	APPROVED [Signature]
CHECKED BY G. STANLEY	APPROVED [Signature]
DATE 12-16-69	SCALE NONE
JK-1026	



SIDE ELEVATION

END VIEW



DATE: 11/5/69
 LOCATION: Port of Portland
 SUBJECT: Dry Dock #1

OWNER: _____ PAGE _____ OF _____

DATE NUMBER	PORT SIDE	BETWEEN FRAMES	ORIGINAL THICKNESS	SONORAY THICKNESS	% WASTAGE	PLATE NUMBER	PORT SIDE	BETWEEN FRAMES	ORIGINAL THICKNESS	SONORAY THICKNESS	% WASTAGE
	NORTH	STEEL PLATE					SOUTH	STEEL PLATE			
		60	.437	.46				62	.437	.46	
		57	"	.47				58	"	.54	
		52	"	.48				55	"	.50	
		48	"	.48				52	"	.48	
		43	"	.44				50	"	.48	
		39	"	.47				46	"	.48	
		34	"	.46				44	"	.42	
		27	"	.50				37	"	.46	
		22	"	.48				30	"	.42	
		17	"	.45				25	"	.45	
		14	"	.46				19	"	.42	
		10	"	.48				16	"	.46	
		6	"	.53				12	"	.44	
		1	"	.50				8	"	.43	
		C	"	.54				4	"	.48	
	NORTH SIDE BETWEEN 1/2" SIDE WALL	10	.437	.48			SOUTH SIDE BETWEEN 1/2" SIDE WALL	10	.437	.48	
		19	"	.48				19	"	.50	
		29	"	.47				29	"	.50	
		39	"	.47				39	"	.48	
		50	"	.49				50	"	.47	
		60	"	.48				60	"	.50	

DRY DOCK
FILE

December 1, 1969

40
C Pro

TO: FILE

FROM: A. J. HEINEMAN

SUBJECT: PREVENTIVE MAINTENANCE ON YFD-69

In a conference with the foreman in the Ship Repair Yard it was determined that the items below are the primary preventive maintenance items charged to the maintenance account on YFD-69:

Electricians

Inspection is made after every ship is undocked to determine that the grounding system is satisfactory. Periodic checks are made on the water level indicators, the contactors and all the controls, controllers, and PA system. Electrician helpers spend a great deal of time changing light bulbs. The electricians take care of greasing all motors and valve operators. Needed at the present time are new cables to supply the dry dock from the pier. This item has been in the budget several times but has not been purchased to date.

Carpenters

Replace fender strips and fenders as necessary annually. They seal the wingwall deck opening. Replace decking planks and aprons. Primary problem on the aprons is the breaking of the timber around the edge when the handrails are pulled over. Replacing keel and bilge block as needed. A large number of the keel blocks have been completely rebuilt in the last couple of years. This is a major repair item and very likely should be charged to the Navy. It was reported that the decking is in very bad shape and it is anticipated that if it is completely removed for painting, the majority will be lost. The last time the decking was completely removed was in 1954.

Painters

General maintenance painting. During the summer the temporary helpers are kept busy on various painting jobs on the Navy Dry Dock. It was determined that the last time the deck was painted was in 1954 using war surplus paint.

PSY500006424

December 1, 1969

Page 2

Machinists

Machinists are responsible for all the mechanical items on the Dock. They fill the lubricators for the journal boxes, repair broken pipelines which are generally due to being hit by equipment. We have no problem due to rusting out of pipelines. Rebuild bilge block ratchets on the wingwalls. Replace the manhole cover to hold down bolts. The docking crew has been replacing the pins on the sheaves for the pull block system. The new pins are being equipped with grease fittings to eliminate the freezing up problem experienced. The pump shaft coupling bolts are being upgraded using steel and stainless steel nuts. Chains on the pull blocks are being replaced as needed. Repairing safety rails on the aprons requires a large amount of time. Work with the dock crew to relocate the spud connection due to high water conditions. Replace the packing in valves and pump motor shafts through the safety deck. Two valve stems have been replaced in recent years. It was noted that the machinists and the utility crew worked together on a large number of the above items. It was also noted that there is no crane service charged as repairs on the Navy Dry Dock.

Divers

An annual inspection is made using a diver under the bottom of the dry dock as a part of the inspection by the Navy forces.

AJH:mcjvh

cc: OB 
RWB

CTS H.L.F.
RFD 05-731.01

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, U. S. NAVY

2400 - 11TH AVENUE S. W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 461-818

5 FEB 1968

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland
Subj: Lease Contract NObs-4315, Port of Portland, Floating Drydock
YFD-69; maintenance of
Ref: (a) SUPSHIP 13 ltr NObs-4315 ser 460-551 of 24 Jan 1968

1. It is requested that this office be furnished a proposed schedule for correcting the maintenance deficiencies reported in Part III of reference (a).
2. The Lessee is further reminded that completion of the maintenance deficiencies reported in reference (a) should be completed prior to the expiration of the current lease year.

J. L. Mullin, Jr.
J. L. MULLIN, JR.
By direction

Copy to:
NAVSHIPSYSCOM (Code 07513)

Any action for E.D.?
Jan 2-7-68

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		X
Aviation		
Ind. Devel.		
Marine	1	
Ch. Engr.		X
Compt.		
Personnel		
Planning		
Pub. Affairs		
Sp. Projects		
Attorney		
Consultant		
No. of Copies 3		

February 23, 1960

SUBJECT: Painting Deficiencies - Navy Dry Dock

Quotations have been received for paint in connection with correcting deficiency item Nos. 6 and 7 of the Inspection Report. These items call for cleaning and painting all rusted and fouled areas of the wingwalls. In general, the areas to be covered are the complete ends of the wingwalls and the inboard and outboard sides above approximately the 19 foot draft mark.

The plan calls for the areas to be sand swept and given one coat primer and one coat haze gray paint. Estimated costs using Port personnel are as follows:

Paint	\$500.00
Monterey sand	270.00
Sand Blast Pot	30.00
LABOR:	
4 Utilitymen 16 hrs each)	
2 Painters 32 hrs each)	450.00
	<u>\$1,250.00</u>

Personnel required are available on the Port crew on a fill in job basis. It is anticipated that the job can be completed by April 1st as scheduled. The drydock will not be taken out of service for this work.

This work is considered to be general maintenance as defined in the Navy lease.

AJH:cma

TO: JOHN J. WINN, JR.

cc: H. Feilock *HJF*

MATERIAL INSPECTION SUMMARY

FLOATING DRYDOCK

YFD-69

(Number)

N00024-70-L0010

(Activity or NObs Lease)

REPORT BUDOCKS 11014-1

For the period ending

OCTOBER 1975

(Month and Year)

Enclosure (1)

PSY500006428

PART I. General

1. YFD-69 is a avy owned 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18" free board, steel floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon breeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under facilities contract N00024-70-L0010. The drydock is moored at the Contractor's plant and has been in service at that plant since 1 December 1949.
3. The drydock is moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier. The two end sections and the center section were drydocked for inspection and underwater repairs during the period September/October 1975.
4. The Board appointed to inspect the drydock consists of Mr. Charles W. Schmidt and Mr. Jesus J. Murguia from the office of the Supervisor of Shipbuilding, Conversion and Repair, USN 13th Naval District, Seattle, Washington. Mr. Carl F. Propp and Mr. Daniel Uhrich represented The Port of Portland. The inspection of the drydock was conducted during the period of 23 September to 31 October 1975.
5. Previous inspection was made in May 1973.
6. The following components were placed in preservation without repair at last major overhaul:
None.
7. The following equipment is stored ashore:
Spare Parts.

PART II. Condition

1. The general condition of the floating drydock is graded as follows for the various major components

PART II. Condition (Continued)

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Good
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Satisfactory
Utilities	(Part II 7)	Satisfactory
Miscellaneous	(Part II 8)	Not Applicable
Cleanliness and good housekeeping		Excellent
Preservation of Equipment not in use	(Part I 6)	Not Applicable
Overall material condition		Good

(In grading the above items, use the following terms as defined):

<u>Terms</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.
Good	Possible some deficiencies but no critical ones. Above the minimum standard required.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.

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Term (Continued)Definition

Unsatisfactory

Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraph 3 through 8 following, is marked as follows:

MarkDefinition

S

Condition Satisfactory

U

Condition Unsatisfactory

M

* Condition Marginal

3. Condition of HullItem No.

<u>Current</u>	<u>Condition</u>	<u>Previous</u>
----------------	------------------	-----------------

Remarks

Exterior

Pontoon

1. Bottom (See diver's report)

S

S

See attachment #3
items #1, 2, 3, 6, & 13

Sides

S

S

2. Below waterline

S

S

See attachment #3
item #6.

3. Waterline

S

S

4. Above Waterline

S

S

5. Deck including bilge block runners

M

S

See attachment #3
items #7, 8Wingwalls

6. Outboard face

S

S

See attachment #3
Item #23

* Marginal conditions may render the facility unsafe for docking ships of the certified docking capacity within three years.

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>		<u>Remarks</u>
		<u>Current</u>	<u>Previous</u>	
7.	Inboard face	S	S	See attachment #3 items #24, 32, & 46
8.	Ends	S	S	See attachment #3, Item 31
9.	Deck	S	S	See attachment #3, items #14, 19, 20
	<u>Interior</u>			
10.	Compartment No. 1	S	Not opened	See attachment #3 items #33, 34
11.	Compartment No. 2	S	Not opened	See attachment #3 items #37, 34
12.	Compartment No. 3	S	Not opened	
13.	Compartment No. 4	S	Not opened	See attachment #3, Item 34
14.	Compartment No. 5 and 5A	S	Satisfactory & not opened respectively.	
15.	Compartment No. 6 and 6A	S	S	Compartment #5 thru 12 See attachment #3, item 4
16.	Compartment No. 7	S	S	
17.	Compartment No. 8	S	S	
18.	Compartment No. 9	S	Not opened	
19.	Compartment No. 10	S	S	
20.	Compartment No. 11	S	Not opened	See attachment #3, item 35 Compartment 11A only
21.	Compartment No. 11A	S	Not opened	
22.	Compartment No. 12	S	S	
23.	Compartment No. 12A	S	Not opened	

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		<u>Current</u>	<u>Condition</u>	<u>Previous</u>	<u>Remarks</u>
24.	Compartment No. 13	S		Not opened	
25.	Compartment No. 14	S		Not opened	
26.	Compartment No. 15	S		Not opened	See attachment #3
27.	Compartment No. 16	S		Not opened	items #36, 31 & 4
28.	Compartment No. 17	S		Not opened	See attachment #3
29.	Compartment No. 18	S		Not opened	item #4
30.	Compartment No. 19	S		Not opened	See attachment #3
31.	Compartment No. 20	S		Not opened	item #38
32.	Compartment No. 21	S		Not opened	
33.	Compartment No. 22	S		Not opened	
34.	Compartment No. 23	S		Not opened	
35.	Compartment No. 24	S		Not opened	
36.	Compartment No. 25	S		Not opened	
37.	Compartment No. 26	S		Not opened	See attachment #3
38.	Compartment No. 27	S		Not opened	item #40
39.	Compartment No. 28	S		Not opened	

Ballast

Permanent: Type: None

Temporary: Type: Silt .25 Ft. .40 Ft.

Silt: Average depth in main ballast tanks compartments No. 1 through No. 16 above.

Item No. (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
-----------------	-------------	----------------	------------------	-----------------

Bridge Structure

40.	Exterior	NOT APPLICABLE		
41.	Interior	NOT APPLICABLE		

Crane Runways

42.	Trusses	NOT APPLICABLE		
43.	Rails	NOT APPLICABLE		
44.	Wood decking	NOT APPLICABLE		

Connections between sections

45.	Locking Logs	NOT APPLICABLE		
46.	Joints	NOT APPLICABLE		
47.	Bridges	NOT APPLICABLE		
48.	Stern Gate	NOT APPLICABLE		

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49.	Diesel Engines	NOT APPLICABLE				
50.	Gasoline Engines	NOT APPLICABLE				
51.	Boiler: <u>Date last inspected</u>	NOT APPLICABLE				
	<u>Date last tested:</u>					

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4. Condition of Mechanical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>	<u>Remarks</u>
Boiler:							
	Days idle since last inspection		NOT APPLICABLE				
52.	Water Distillation Unit		NOT APPLICABLE				
	<u>Refrigeration Units</u>						
53.	Walk-in		NOT APPLICABLE				
54.	Reach-in		NOT APPLICABLE				
55.	Air Compressors	1	1	S		S	See Encl#2, Item 1.b
56.	Oil Purifiers		NOT APPLICABLE				
57.	Hydraulic Gate Operator		NOT APPLICABLE				
58.	Hydraulic Steering Equipment		NOT APPLICABLE				
59.	Main Dewatering Pumps	8	8	S		S	See Encl#2 Items 1.b, 1.e
60.	Fresh Water Pumps		NOT APPLICABLE				
61.	Salt Water Pumps		NOT APPLICABLE				
62.	Fuel Oil Pumps		NOT APPLICABLE				
63.	Drainage Pumps		NOT APPLICABLE				
64.	Vacuum Priming Pumps	4	4	S		S	See Encl#2, Item 1.b
65.	Automatic Grease Pumps	8	8	S		S	See Encl#2, Item 1.b

4. Condition of Mechanical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Weight-Handling Equipment</u>						
	<u>Cranes</u>	NOT APPLICABLE				
	Type:					
	Make:					
	Capacity:					
66.	Structural	NOT APPLICABLE				
67.	Electrical	NOT APPLICABLE				
68.	Mechanical	NOT APPLICABLE				
69.	Safety	NOT APPLICABLE				
70.	Derricks	NOT APPLICABLE				
71.	Capstans	8	8	S		S
72.	Deck Winches	NOT APPLICABLE				
73.	Anchor Windlass	NOT APPLICABLE				
74.	Elevators	NOT APPLICABLE				

See Encl#2 Ite
1.b & Attch B
Item 27

5. Condition of Electrical Installation

5. Condition of Electrical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Generators</u>					
75.	AC		NOT APPLICABLE			
76.	DC		NOT APPLICABLE			
	<u>Motors</u>					
77.	AC	72	72	S		S
	<u>Switchgear</u>					
78.	AC	8	8	S		S
	<u>Panelboards</u>					
79.	AC	16	16	S		S
80.	DC		NOT APPLICABLE			
81.	Control Boards	2	2	S		S
	<u>Transformers</u>					
82.	Power		NOT APPLICABLE			
83.	Lighting	2	2	S		S
84.	Power Cables(shore to deck)	5	5	S		S
85.	Power Receptacles	10	10	S		S
86.	Junction Boxes			S		S
86A.	Ship Service Welding & shore service cable-ways in wing wall deck	20	20	S		S

Enclosure (1)

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>		<u>Remarks</u>
		<u>Current</u>	<u>Previous</u>	
	<u>Blocking</u>			
87.	Fixed Blocks	S	S	See Attachment#3 Item 43
88.	Hauling Blocks	S	S	See Attachment#3 Item 42
89.	Outriggers	S	S	See Attachment#3 Item 5
90.	Flying Bridges	NOT APPLICABLE		
91.	Anchors	NOT APPLICABLE		
92.	Hauling Blocks Chain	M	S	See Attachment#3 Item 10
93.	Hawsers	NOT APPLICABLE		
94.	Bollards	NOT APPLICABLE		
95.	Cleats	S	S	
96.	Chocks	M	S	See Attachment#3 Item 16
97.	Watertight Doors	S	S	See Attachment#3 Item 18
98.	Hatches and Scuttles	S	S	See Attachment#3 Items 15 & 28
99.	Airports	NOT APPLICABLE		
100.	Manholes and Covers	S	S	See Attachment#3 Item 11
101.	Accommodation Ladder	S	S	See Attachment#3 Item 26
102.	Vertical & Incline Ladders	S	S	See Attachment#3 Items 13, 41 & 46
103.	Handrails	S	S	

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6. Condition of Fittings (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>	<u>Remarks</u>
104.	Platforms	S	S	See Attachment#3 Item 25
105.	Gratings	M	S	See Attachment#3 Item 12
106.	Sidewall Jacking Equipment		NOT APPLICABLE	
	Pier Moorings			
107.	Spuds	S	S	
108.	Mooring Guides	S	S	
109.	Alignment between Pier and Sections	S	S	
110.	Draft Gages	S	S	See Attachment#3 Item 44
111.	Davits		NOT APPLICABLE	
112.	Fenders	S	S	See Attachment#3 Item 29

7. Condition of Utilities

Piping System

113.	Dewatering and Flooding	S	S	See Attachment#3 Item 36.1
	<u>Valves and Valve operators</u>			
114.	Suction Valves	S	S	} See Enclosure #2 Item 1.c
115.	Crossover Valves	S	S	
116.	Discharge Valves	S	S	

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>		<u>Remarks</u>
		<u>Current</u>	<u>Previous</u>	
117.	Flooding Valves	S	S	See Enclosure#2 Item 1.c
118.	Check Valves	S	S	" "
119.	Foot Valves	NOT APPLICABLE		
120.	Flood Gates	S	S	See Enclosure#2 Item 1.c
121.	Sluice Gates	NOT APPLICABLE		
122.	Steam Supply System	S	S	
123.	Fuel Oil System	NOT APPLICABLE		
124.	Lubricating Oil System	NOT APPLICABLE		
125.	Fresh Water System	NOT APPLICABLE (Removed)		
126.	Fire Extinguishing and Flushing System	S	S	
127.	CO ₂ Fixed System	NOT APPLICABLE		CO ₂ Bottles (portable) installed & maintained by lessee
128.	Sprinkler System	NOT APPLICABLE		
129.	Compressed Air System	S	S	
130.	Air Vent System	S	S	See Enclosure#2 Item 1.d
	Heating and Ventilating System			
131.	Piping and Ducts	NOT APPLICABLE		
132.	Ventilation and Exhaust Outlets	NOT APPLICABLE		
133.	Ventilation Fans	NOT APPLICABLE		
134.	Vent Valves	NOT APPLICABLE		

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>	<u>Remarks</u>
135.	Unit Heaters		NOT APPLICABLE	
136.	Unit Convectors		NOT APPLICABLE	
137.	Heating Coils in Ballast Tanks		NOT APPLICABLE	
138.	Range Hoods and Grease Filters		NOT APPLICABLE	
	<u>Plumbing System</u>			
139.	Piping and Fittings		NOT APPLICABLE	
140.	Fixtures		NOT APPLICABLE	
	<u>Lighting System</u>			
	Interior			
141.	Fixtures	S	S	
142.	Circuits	S	S	See Attachment#3 Item 21
	<u>Exterior</u>			
143.	Standards		NOT APPLICABLE	
144.	Fixtures	S	S	These components were
145.	Circuits	S	S	inspected and tested durin
146.	Searchlights	S	S	night operations of drydoc
	<u>Communication System</u>			

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>		<u>Remarks</u>
		<u>Current</u>	<u>Previous</u>	
147.	Sound Powered Telephones	NOT APPLICABLE		
148.	Dial Telephone System	NOT APPLICABLE		
149.	Loud Speaker System	S	S	
150.	General Alarm System	S	S	See Enclosure#2 Item 1.f

Water Level and Draft Indicator System

Type: Bristol

151.	Previous Inspection and Repair by Manufacturer:	<u>1954</u>	Present condition of the indicator system is satisfactory. See Enclosure #2 Item 1.g
		<u>Date</u>	
	Scheduled Date of Next Inspection by Manufacturer:	<u>None</u>	
		<u>Date</u>	

Miscellaneous Steel Tanks

152.	Fresh Water Supply	NOT APPLICABLE
152-A	Salt Water Tanks	NOT APPLICABLE
153.	Hot Water Storage	NOT APPLICABLE
154.	Cooling Water Expansion	NOT APPLICABLE
155.	Fuel Tanks	NOT APPLICABLE
156.	Lube Oil Tanks	NOT APPLICABLE

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8. <u>Condition of Miscellaneous Installations</u>	<u>CONDITION</u>		<u>REMARKS</u>
	<u>Current</u>	<u>Previous</u>	
157. Brows			
158. Galley and Mess Equipment		Not applicable	
159. Clinometers	S	S	
Life Saving Equipment			
160. Boats		Not applicable	
161. Liferafts		Not applicable	
162. Life rings		Not applicable	The lessee provides and maintains life rings on top deck
163. Vests		Not applicable	
164. Cathodic Protection System		Not applicable	

9. Drydock Basin Soundings taken at drydock basin on 11-4-75 With the tide at 4'-6"
elevation, it is the Lessee's responsibility to maintain sufficient water
depth beneath the drydock at all times.
REFER TO KEY PLAN FOR DETAIL See Attachment #1

10. Submergence Test

- a. The test was conducted on 31 October 1975. The dock was submerged to 25'-11" over 4'-0" keel blocks, and held in that position for 51 minutes. The total time to flood or pump the dock was 51 and 57 minutes respectively.
- b. A detailed summary log of the test is provided in Attachment No. 4.

11. Underwater Inspection

1. The YFD-69 was self docked as follows; 23 Sept. to 3 October the center section, and 8 thru 16 October the end sections. During this time a thorough inspection of the underwater body was made, including paint thickness readings, gaging of suspected deteriorated areas using the ultrasonic measurement, and by drilling and measuring. The following is a summary of inspection results:

a. Hull plating condition:

(1) Corrosion on shell plating below the normal water line was minor with exception of the self-docking recesses and areas in way of the keel blocks of the previous docking (previous docking made in 1964). The extent of corrosion in these areas are noted on attachment No. 3 items 1, 2, 3, and 6.

(2) The bottom shell plating has an indentation of three feet in diameter and 3 1/4" deep, located six ft. off centerline port on attachment No. 3 items 30 and 33b. Also see Item 31 for wingwall shell indentation.

(3) Gaging of the self docking recesses by ultrasonic, drilling and measuring methods indicate that shell plate is above the minimum criteria of .375 inches with readings ranging from .380 to .550 inches for an average of .460 inches for a .500 (1/2") plate. It should be noted that 50% of the ultrasonic readings exceed the .500 requirement. Drilling and measuring was done to verify the ultrasonic readings verifying acceptability within plus or minus .010". The inspectors concluded that heavier plate .562 (9/16") may have been used in lieu of the .500 (1/2") thick shown by drawings.

b. Preservation.

(1) The last underwater preservation was done in 1964. At the present time this preservative is still in a very good condition without peeling or cracking, but some minor blisters were detected mainly on welds as noted in paragraphs 10.a. (1) above. Approximately 120 paint thickness readings were taken from the bottom shell plating ranging from 9 to 14 mils dry film thickness, for an average 10.6 mils coating. The required NAVSHIPS Technical Manual coating thickness is 10.5 mils.

(2) Concentration of active corrosion due to the lack of preservation the pontoon deck middle 40 feet of the entire deck including appurtenances. Ultrasonic gaging was made at random of the subject area to determine the degree of deterioration for comparison with its original thickness.

a. Readings taken ranged from .300 to .440 thousands for an average of .396 mils. Minimum plate thickness should be .312 mils. Since the transducer would not give accurate measurement of the pits unless grinding to a flush surface the area to be measured. It is estimated that the actual loss of metal should be approximately from 40 to 70 thousands. The maximum loss is allowed 108 thousands.

12. Careening:

At the discretion of the Port of Portland authorities, the center section was trimmed forward and aft, for the purpose of exposing the bilge corner recesses and the center line keel block areas in need of sandblasting and preservation. Preservation of this area was done 98%, two keel block areas on both ends of center section were not sandblasted and preserved because they were not fully exposed or accessible by the trimming operation. End sections bottom plating were sandblasted and preserved 100% in way of cribbing and keel block areas during self docking.

13. Maintenance and project list:

1. The following changes and additions to the dock's maintenance project and work list are recommended:

a. Sandblast to white metal and preserve per NAVSHIPS Technical Manual the pontoon deck strip of 20 feet off center line port and starboard including appurtenances to prevent a major future repair, or decrease the docking capabilities. This seems to be a recurring deficiency noted on several Annual Material Inspections.

14. Improvements:

1. The following improvements to the dock are recommended.

a. None.

15. Missing major items:

a. Bilge block runners (bearlogs); 40% of the track is missing.

b. Vertical ladders; All the exterior ladders on the inboard side of the port and starboard wingwalls have been removed by the lessee.

c. Sheave bracket assemblies; Bilge block runners at frames A, B, C, D and E port and starboard have assemblies missing. (10 units)

16. Auxiliary Craft.

None.

PART III DESCRIPTION OF DEFICIENCIES AND RECOMMENDED ACTION

<u>ITEM NO.</u>	<u>DESCRIPTION OF DEFICIENCIES</u>	<u>RECOMMENDATIONS AND ACTIONS TO BE TAKEN</u>	<u>ESTIMATED COST (Dollars)</u>
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SEE	ATTACHMENT #3		
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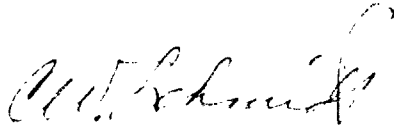
PART IV DEFICIENCIES NOTED IN PREVIOUS REPORTS

<u>ITEM NO.</u>	<u>CORRECTED</u>	<u>CORRECTIVE ACTION STARTED</u>	<u>COMMENTS</u>
5	Pontoon deck pitted aft end section, hand tool deck preparation and redlead (F-119) applied was insufficient.		Active corrosion is present on pontoon deck. Sandblast to white metal and full preservation must be done.
88	Renew 25% of hauling block chains Replace Wood fenders at top of wing walls (about 100 ft)		No visual evidence of chain being replaced Several sections of wooden fender have been renewed, date unknown.

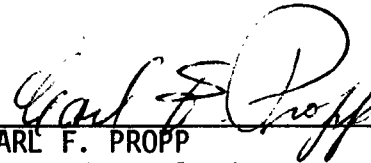
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PART V. CERTIFICATION AND SIGNATURES

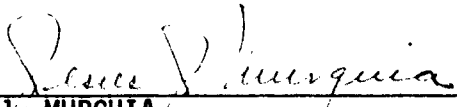
This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP), USN, Seattle, and representatives of the Contractor.



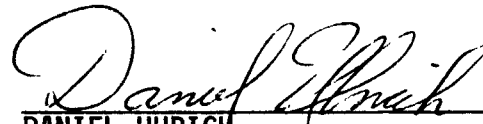
CHARLES W. SCHMIDT
SUPSHIP Seattle Senior Board Member



CARL F. PROPP
Port of Portland



JESUS J. MURGUIA
SUPSHIP Seattle Board Member



DANIEL UHRICH
Port of Portland

"A" SIDE

← RIVER FLOW

Basin soundings YFD-69, 11/4/75, 1245. River stage was 4'6" / Reading adjusted to a 0' river.

A. Keith Murdock, Dockmaster

ATTACHMENT No. 2

INDICATOR READINGS AND ACTUAL WATER LEVEL

NAVY DRYDOCK

OPERATOR Navy Inspection

VESSEL YFD-69

DATE 31 October 19 75

TIME 14:30

	COMP. 16	COMP. 14	COMP. 12	COMP. 10	COMP. 8	COMP. 6	COMP. 4	COMP. 2
INDICATOR READINGS	10'-3"	10'0"	10'3"	10'0"	10'0"	9'11"	10'2"	9'11"
ACTUAL WATER LEVEL	10'-1"	10'0"	10'2"	10'1"	9'7½"	9'7"	10'1½"	10'1"
FREEBOARD	AFT = 40'2"				FREEBOARD FWD 39'-10"			
	COMP. 15	COMP. 13	COMP. 11	COMP. 9	COMP. 7	COMP. 5	COMP. 3	COMP. 1
INDICATOR READINGS	10'0"	10'0"	9'11"	10'1"	10'0"	9'10"	9'10"	10'0"
ACTUAL WATER LEVEL	10'1"	10'1"	10'2"	10'2"	9'11"	1'11"	10'1"	10'1"

	DRAFT FWD.	DEFFICIENT DRAFT GAUGES:		DRAFT APT.
INDICATOR READINGS	12'6"	BALLAST TANK #6	INDICATOR READINGS	13'0"
		BALLAST TANK #8		
ACTUAL DRAFT	12'0"	FWD DRAFT GAUGE	ACTUAL DRAFT	12'4"
		AFT DRAFT GAUGE		

ATTACHMENT #3

Summary of discrepancies found during the survey of the floating dry dock YFD-69. Asterisk, adjacent to number indicates that repairs and/or preservation were completed prior to deep submergence trials in accordance with NAVSEA requirements.

- * 1. Bottom Shell Plating; Corrosion on exterior of self-docking recesses and areas in way of the blocks used during previous drydocking of the vessel (October 1964). Approximate total surface area of 4,600 square feet.
- * 2. Transverse Weld Joints of the Bottom and Vertical Shell exteriors at frames A, K, L, V, 8 and 54 were corroded with minor loss of weld on scattered locations, approximately 750 lineal feet.
- * 3. Intermittent Corrosion on Longitudinal Welds at the Turn of the Bottom and outboard wingwall exterior plating at the 6' - 6" waterline port and starboard, approximately 300 lineal feet.
- * 4. Sea Chests for 30" flooding valves (8), and four sea chests for the 18" flood valves showed concentrations of rust on waster plate and adjacent areas.
- * 5. Outriggers; Light deterioration shattered throughout the structural shares; six diagonal and transverse "T" bar braces are buckled.
- * 6. Scattered deep pitting found on Transverse Bulkhead Frame "K" Lower Exterior portion; also on the aft port self docking recess. Pitting ranged from 1/8" to 1/4" deep from 3/8" to 5/8" diameter. Approximately 150 pits were clad welded.
- 7. Pontoon Deck Plating; Active and heavy deterioration exist on top side of plate about 20 feet from center line port and starboard. Remaining outboard areas in way of wooden deck is satisfactory with only minor scattered rusted areas mainly in way of wooden deck supports.
- 8. Bilge Block Runners (Bear logs) including gussetts, track and sheave brackets have active corrosion, moderate on the outboard half, and heavy on the inboard half.
- 9. 50% of the Sheave Brackets are deteriorated below criteria (25% loss of material), the majority of the bear log sheaves are frozen due to lack of grease fittings and/or lubrication.
- 10. Hauling Blocks Chain between frames 15 and 48 have sections of 30 to 50 linear feet deteriorated below criteria (40% deterioration).
- 11. Man-hole covers and coaming on pontoon deck are rusted. Approximately 70% of the drop bolts were replaced during the September/October of 1975.

12. Grating between center and end sections is rusted, warped and some sections deteriorated 30 to 50 percent. Cleaning and preservation of flat bar retainers is required.
13. Vertical ladder on starboard outboard wing wall at frame 45 has a broken flat bar runner on lower section.
14. Top Deck Port Wing Wall lacks preservative on 65% of the top side, no indications of rust or deterioration. Cleaning and preservation has been started and is about 15% completed as of October 1975.
15. The 18" scuttle on top deck at Frame 14; locking mechanism is inoperable.
16. Roller chocks on top deck at frames 1 and 61 port and starboard are frozen due to lack of lubrication.
17. Control House has two cracked glass windows, and one (Bottom) glass retainer corroded.
18. Watertight door at frame 8 has the top dog frozen.
19. Starboard Wingwall Pump Room #1 shows light rust on boundary bulkheads including approximately 50% of the safety deck.
20. Starboard Wingwall Pump Room #7 needs preservative on about 25% of deck area, no rust shown.
21. Light Switch for overhead lights in compartment #33 partially inoperable 50% of the lights do not work.
22. Several hinged plates for hauling block chain rachets are missing.
23. Port Wingwall outboard area above mooring spud aft-end section has a rusted area approximately 5 x 10 feet.
- *24. Inboard shell above bolting flanges port and starboard on fwd and aft end sections shows moderate rust approximately 2,400 square feet (cleaned and preserved with one coat of Formula 119).
- *25. Platforms Gussett plates for all four bolting flanges on end sections have bottom three inches rusted within pockets. Drain holes had to be cut or enlarged for proper drainage. Approximately 200 gussett plates with a total of about 600 lineal feet of 3" rusted strip to be cleaned and preserved.
26. Accomodation Ladder on port wing wall is in good structural condition. However full preservation is required.
27. Capstand Foundation at Frame 40-41 starboard has a crack 2" long on the bottom inboard flange plate.

28. Top deck scuttles at frame 3 starboard and 59 port have an area on the knife edge worn out about 1/2" deep from pulling manila ropes from safety deck compartments.

29. Deteriorated Wooden Fenders as follows:

- a. Vertical fender at frame 1 starboard (14" x 14" x 15' - 0")
- b. Vertical fender at frame 54 starboard (12" x 12" x 25" - 0')
- c. Top deck inboard fenders various locations approximately 100 lineal feet.

*30. Bottom shell indentation about 3 feet diameter and 3-1/4" deep, 6 feet off centerline between frames "U" and "V". Internal damage one broken, two buckled intercostal stiffeners. Repairs made by replacing broken stiffener and reinforcing the buckled ones. Ultrasonic gauging of shell plate was not replaced. Damage incurred by a log embedded on the river bottom; log size about 24" diameter by 15' - 0" long.

31. Outboard Shell Indentation Tank #15 Frame "A" at the 35-0 waterline starboard, approximately 6 feet diameter and 3" deep. Inspection of damaged area disclosed no need for immediate repairs.

32. Inboard wingwalls between the 25 and 40 foot waterline port and starboard, shows scattered light rust.

*33. Ballast Tank #1.

- a. Vertical stiffeners on bulkhead frame "V" shows concentration of corrosion on the back side of "T" bar stiffeners, approximately 300 square feet area.

- b. Corrosion on bottom shell plate (interior) around suction pump. Clean and preserve approximately 40 square feet.

- c. Concentrations of corrosions scattered on vertical and diagonal trusses under the pontoon deck area approximately 160 square feet area.

- d. Replace deteriorated brackets for the water level indicator on the inboard longitudinal bulkhead. Clean and preserve rusty spots.

*34. Ballast Tank #4. Replace deteriorated brackets for the water level line indicator on the inboard longitudinal bulkhead. Clean and preserve rusted areas on longitudinal bulkhead adjacent to frame "P".

*35. Ballast Tank #11A Collision Compartment. Vertical stiffeners on transversal bulkhead frame 15 shows concentration of corrosion on the after side of the flanges on bottom 10 feet, approximately 180 square feet area.

*36. Ballast Tank #15.

- a. Moderate corrosion on inboard longitudinal bulkhead adjacent to the water level indicator tubing. Approximately 60 square feet area.
- b. 20" discharge pipe has patches of corrosion on top of pipe, approximate area 40 square feet.
- c. Vertical stiffeners on transversal BHD frame "A" show concentration of corrosion on the aft side of the flange. Approximately 300 square feet area.
- d. Replace brackets for the water level indicator on the inboard longitudinal bulkhead.

*37. Ballast Tank #2

- a. The 20" discharge piping shows deterioration and rust between the swash bulkhead and cross connection approximately 80 square feet area.
- b. Patches of rust about 6" x 3' - 0" on transversal bulkhead frame "Q" approximate area 30 square feet.

*38. Buoyancy Tank #17. Corroded area of bottom shell plate (interior) adjacent to transversal bulkhead frame "Q", area 3 square feet.

*39. Trim Tank Forward End (Tank #19) Bottom 15" of tank area rusted including stiffeners, area approximately 256 square feet.

*40. Trim Tank After End (Tank #26) Bottom 15" of tank area rusted including stiffeners, area approximately 256 square feet.

41. Vertical Ladder on outboard wingwall starboard after end section is damaged (bent) on 3 places.

42. 14 Bilge Blocks have been marked and removed from dock for repairs. Bilge blocks have cracked or split wooden blocks and or damaged hardware.

43. Keel blocks; five blocks have half of one 12" x 12" x 54" wooden blocks missing, two keel blocks have one deteriorated (decayed) 12" x 12" x 54" wooden block. Keel blocks were inspected on pier and are not identified by number because blocks do not have identification marks.

44. Draft gages (Board indicators) on inboard wing walls at midship need preservation and repainting of draft marks.

45. Bracket and Sheave Assemblies on bilge block runners are missing at Frame A, B, C, D, and E.
P/S (10 assembly)

46. All the Vertical Ladders on the exterior inboard side of the port and starboard wingwalls have been removed by the Port of Portland.

47. Draft gages (control house). During deep submergence test the following water level indicator gages were found to be in need of adjustment (based on 3" variance criteria).

FWD Draft Gage
AFT Draft Gage

Ballast Tank #6
Ballast Tank #8

*48. Ballast Tank #6, packing gland for raising stem on 30" flood valve (at safety deck) leaked. Leak repaired.

49. Ballast Tank #5, packing gland for raising stem on 30" flood valve (at safety deck) leaked.

50. Safety deck Frame 18-1/2 electrical fitting for cross dock 3" cable leaking thru packing gland.

*51. Bottom shell plate in way of the sloping shell for the flooding sea chest in the center section showed concentrations of rust. Areas affected were cleaned using hand tools and preserved with seven coats vinyl.

ATTACHMENT NO 4

1. Summary log of the floating drydock YFD-69 deep submergence test conducted 31 October 1975 at the Port of Portland, Portland, Oregon.

- *a. Flooding commenced at 11:08 with flood, discharge and suction valves fully opened.
 - b. Dock commenced submergence with a draft of 6'-3" forward and 6'-6" aft.
 - c. Keel blocks set nine feet high for docking of the USS Rodgers (DE-876).
 - d. Pontoon deck reached zero freeboard at 11:37 with a draft of 16'-0" forward and 16'-4" aft; and a list of one degree port.
 - e. Flooding was temporarily slowed down at zero pontoon freeboard due to the high keel block buildup.
 - f. The normal maximum submergence was reached at 11:59 with a 6'-5" free board.
 - g. All ballast tanks air vents working properly.
 - h. All flood, suction and discharge valves remained fully opened while dock was held at the normal maximum submergence.
 - i. Dock held at the normal maximum submergence for 51 minutes.
 - j. Dewatering operation started at 12:50 with flooding valves fully closed.
 - k. Dock emerged with an even keel and without sluggishness, reaching a draft of 6'-0" at 13:47.
 - l. Reflooding to a 10'-0" draft was made to check the gauge readings on the water level indicator panel, against the actual water level in ballast tanks as shown in attachment No. 2.
 - m. A draft of 10'-0" was reached at 14:00 hrs.
- * Valve opening indicators on panel board registered from 78% to 96% open, when valves were opened 100%

PSY500006456

WATER LEVEL INDICATOR GAUGE READINGS

Readings taken at 12:00 P.M.

Readings taken at 12:45 P.M.

1.	46.5'	draft	47'	draft
2.	47'	"	47.1'	"
3.	47.8'	"	48'	"
4.	48'	"	48.2'	"
5.	46.8'	"	47'	"
6.	47.8'	"	48'	"
7.	47'	"	47.3'	"
8.	39.5'	"	47.1'	"
9.	43.8'	"	48'	"
10.	46.6'	"	46.8'	"
11.	44.2'	"	46.8'	"
12.	42'	"	46.8'	"
13.	41.7'	"	47.1'	"
14.	37.8'	"	47.7'	"
15.	47'	"	47'	"
16.	47.2'	"	47.3'	"
Fwd draft	47.2'		47.8'	
Aft draft	37'		37.2'	

Dock settled at a draft of 25' - 11" above 4' - 0" keel blocks at 12:15 P.M. and remained at the same until dewatering operation began.

FROM: Port of Portland Swan Island Ship Repair Yard						DATE: 11/6/75	
TO: COMMANDING OFFICER, U.S.S.							
PLACE DOCKED Portland, Oregon		DATE DOCKED 9/23		DATE UNDOCKED 10/3		POSITION NUMBER THIS DOCKING	
DOCKING PLAN NUMBER		PLAN NUMBERS FOR ZINCS OR CATHODIC PROTECTION				REASON FOR DOCKING	
Normal docking on end sections						Inspection	
SHAFTS		SHAFT DIAMETER		DESIGN CLEARANCE		MAXIMUM ALLOWANCE CLEARANCE	
BEARING CLEARANCES WHEN DOCKED		STERN TUBE		INTERMEDIATE STRUT		MAIN STRUT	
		FORWARD AFT		FORWARD AFT		FORWARD AFT	
NO. 1 OR STBD. OUTBD.							
NO. 2 OR STBD. INBD.							
NO. 3 OR PORT INBD.							
NO. 4 OR PORT OUTBD.							
BEARING MATERIAL						MATERIAL	
						INBD OUTBD	
CONDITION OF SHAFTING AND MATERIAL						INBD PLAN NO. AND REVISION	
						OUTBD	
RUDDER AND DIVING PLANES. POST DIAMETER		PORT		STARBOARD		CENTERLINE	
		IN.		IN.		IN.	
BEARING CLEARANCE.		PORT		STARBOARD		CENTERLINE	
		IN.		IN.		IN.	
SONAR EXISTING AT UNDOCKING DOME TYPE		SERIAL		WORK DONE--INCLUDE PRINTING			
COATING APPLICATIONS ACCOMPLISHED THIS DOCKING							
BOTTOM		Sandblasted rusted areas and applied wash coat and vinyl finish. Blocks					
BOOT TOPPING		were removed from previous docking, allowing 100% exposure of both end					
RUDDERS AND STRUTS		sections. All rusted and corroded areas were treated 100%. Used					
SHAFTING		Formula-117 wash primer vinyl, 119 vinyl red lead and vinyl 163.					
TANKS		All buoyancy tanks and ballast were inspected for rust and deterioration. Rusted areas were scraped and wire brushed. Black Cat preservative was applied. ^{Flushing} Sea chests were scraped and wire brushed. Black Cat preservative was applied. All sea valves and discharge valves were inspected. ^{1 VISUALLY}					
REMARKS:							
Center section was docked on end sections. Blocking on each end section consisted of 10 keel blocks setting on 6' centers. Keel blocks were exposed by trimming center section. <i>FOUR KEEL BLOCK AREAS WERE NOT PRESERVED BECAUSE OF INACCESSIBILITY.</i>							
SIGNATURE		NAME, CLASS AND NUMBER OF SHIP					
Carl F. Propp Keith Murdock		YFD-69 center section docked on end sections					

Keith Murdock

DOCKING REPORT

ENCLOSURE 12

PSY500006458

FROM: Port of Portland Swan Island Ship Repair Yard						DATE: 11/6/75	
TO: COMMANDING OFFICER, U.S.S.							
PLACE DOCKED Portland, Oregon		DATE DOCKED 10/8		DATE UNDOCKED 10/16		POSITION NUMBER THIS DOCKING 1	
DOCKING PLAN NUMBER 365710		PLAN NUMBERS FOR ZINCS OR CATHODIC PROTECTION				DIST. S.R.P. TO AFTMOST KEEL BLOCK	
REASON FOR DOCKING Inspection							
SHAFTS		SHAFT DIAMETER		DESIGN CLEARANCE		MAXIMUM ALLOWANCE CLEARANCE	
BEARING CLEARANCES WHEN DOCKED		STERN TUBE		INTERMEDIATE STRUT		MAIN STRUT	
		FORWARD AFT		FORWARD AFT		FORWARD AFT	
NO. 1 OR STBD. OUTBD.							
NO. 2 OR STBD. INBD.							
NO. 3 OR PORT INBD.							
NO. 4 OR PORT OUTBD.							
BEARING MATERIAL						MATERIAL	
CONDITION OF SHAFTING AND MATERIAL						INBD PLAN NO. AND REVISION	
						OUTBD	
RUDDER AND DIVING PLANES POST DIAMETER		PORT		STARBOARD		CENTERLINE	
		IN.		IN.		IN.	
BEARING CLEARANCE		PORT		STARBOARD		CENTERLINE	
		IN.		IN.		IN.	
SONAR EXISTING AT UNDOCKING		DOME TYPE		SERIAL		WORK DONE—INCLUDE PRINTING	
COATING APPLICATIONS ACCOMPLISHED THIS DOCKING							
BOTTOM		Sandblasted rusted areas and applied wash coat and vinyl finish. Blocks were removed from previous docking, allowing 100% exposure of both end sections. All rusted and corroded areas were treated 100%. Used Formula-117 wash primer vinyl, 119 vinyl red lead, and vinyl 163.					
BOOT TOPPING							
RUDDERS AND STRUTS							
SHAFTING							
TANKS		All buoyancy tanks and ballast were inspected for rust and deterioration. Rusted areas were scraped and wire brushed. Black Cat preservative was applied. ^{floating} Sea chests were scraped and wire brushed. Black Cat preservative was applied. All sea valves and discharge valves were inspected. ^{1 VISUALLY}					
REMARKS:							

SIGNATURE Carl f. Propp	Keith Murdock	NAME, CLASS AND NUMBER OF SHIP YFD-69 End sections docked on center section.
----------------------------	---------------	---

DOCKING REPORT

ENCLOSURE 21

PSY500006459

FRED DEVINE DIVING & SALVAGE, INC.

OPERATING THE M. V. SALVAGE CHIEF

6211 N. ENSIGN
PORTLAND, OREGON 97217

DIVER'S REPORT

Surveyed SWAN ISLAND NAVY DRYDOCK
Requested by PORT OF PORTLAND
Nature of Accident _____
Survey Started 16 JANUARY 1975 0800 Completed 16 JANUARY 1975 1400 HOURS
Condition of Water MURKY

REMARKS

I made an underwater survey of the above named drydock starting from the bow and working toward the stern in six foot increments along a rope stretched transversely across the vessel. The rope was moved six feet aft, after each pass by crew men on the drydock.

I found the following irregularities in the condition of the drydock:

The bow and stern aprons are in generally good condition except for intermittent spots of rust.

The area inway of the location of its blocks used during drydocking the vessel was found to be rusting. Pitting is visible around the circumference of each such location.

I found no detectable difference in the condition of the drydock since my last survey on 3 May 1973.

I hereby certify to the above statements being true to the best of my belief.

Kent W. Cochran
KENT W. COCHRAN
MARINE DIVER

FRED DEVINE DIVING & SALVAGE, INC.

OPERATING THE M. V. SALVAGE CHIEF
6211 N. ENSIGN
PORTLAND, OREGON 97217

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MARINE DIVER

KENT W. COCHRAN

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PORTLAND, OREGON 97217

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OPERATING THE M. V. SALVAGE CHIEF

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PORTLAND, OREGON 97217

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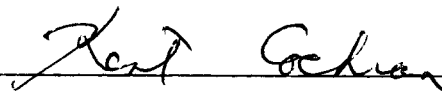
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KENT W. COCHRAN MARINE DIVER

**FRED DEVINE DIVING &
SALVAGE, INC.**

6211 N. ENSIGN
PORTLAND, OREGON 97217

MAILING ADDRESS
BOX 11224
PORTLAND, OREGON 97211

PORT OF PORTLAND

PSY500006466

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

630-41-2
Act: C. Propp
Info: D. Neset
W. Plymouth
3

78 NOV 1 21

THE PORT OF PORTLAND

IN REPLY REFER TO:
YFD-69
Ser 460-911
29 OCT 1978

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Port of Portland, Portland, Oregon

Subj: Contract N00024-70-L-0010, Port of Portland, Floating Drydock YFD-69;
Joint Annual Material Inspection and Drydocking

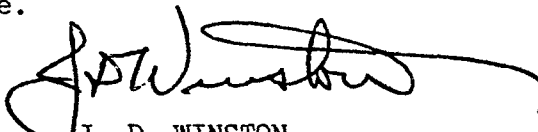
Ref: (a) Contract N00024-70-L-0010, General Provisions (Floating DRY DOCK
LEASE NAVSHIPS (10 USC 2667)(Nov 1966)

Encl: (1) Annual Report of Material Inspection of Floating Drydock YFD-69
(2) Docking Report of End Section of YFD-69
(3) Docking Report of the Center Section of YFD-69

1. In accordance with Article 6.(b) of reference (a), the joint annual inspection report and the docking reports, consisting of enclosures (1) through (3), are submitted for your information and appropriate action.

2. Pursuant to Article 6.(b) of reference (a), the Lessee is requested to furnish a proposed normal maintenance program indicating the estimated costs and time schedule for the accomplishment of the deficiencies contained in enclosure (1) within 30 days after receipt of this letter.

3. Upon notification of completion of noted deficiencies, a re-inspection will be accomplished by this office.


J. D. WINSTON
By direction

Copy to: (ea w/encls)
CNO (OP-434)
NAVSEA (Code 0701B)(2)
Port of Portland (Attn: C. F. Propp)(4)

PSY500006467

630-4.1.4

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
RECEIVED 13th NAVAL DISTRICT

JUL 16 8 28 AM '71
SEATTLE, WASHINGTON 98115

THE PORT OF
PORTLAND

IN REPLY REFER TO:

YFD-69

Ser 461-2219

13 JUL 1971

From: Supervisor of Shipbuilding, Conversion and Repair, USN

13th Naval District

To: The Port of Portland

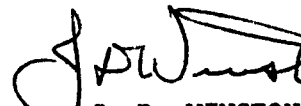
Subj: Lease Contract N00024-70-L0010, Port of Portland, Floating
Drydock YFD-69; pontoon deck painting, information
concerning

Ref: (a) Port of Portland ltr of 18 Aug 1970

1. By reference (a), an estimate of cost was submitted comparing
application of inorganic zinc as opposed to the use of deck paint
as has been the practice in the past.

2. Use of black deck paint, to the pontoon deck, is hereby approved
provided it be applied as part of the periodic maintenance with a
complete new application at a minimum of every five years.

3. The application of the black deck paint is considered a
contractual obligation, with all costs to be borne by the Lessee.


J. D. WINSTON
By direction

Copy to:
NAVSHIPSYSCOM (0751)

	Action	Info
Commission		
Executive Director		
Administration		
Legal		
Public Information		
Attorney		
Aviation		
Engineering		
Finance		
Marine		
Marketing		
<i>A. J. Heinen</i>	X	
<i>CF Propp</i>		X
No of Copies	2	

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To File

05-731.011

DEPARTMENT OF THE NAVY

SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN

RECEIVED:

13th NAVAL DISTRICT

SEATTLE, WASHINGTON 98115

JAN 4 8 24 AM '71

THE PORT OF
PORTLAND

IN REPLY REFER TO:

YFD-69

Ser 460-5997

30 DEC 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District

To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69;
shore power feeder cables, inspection and approval of

Ref: (a) The Port of Portland ltr of 11 Dec 1970

1. In accordance with reference (a), the subject shore power feeder
cables were inspected on 21 December 1970 and the installation is
hereby approved.

W. L. SETH
W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)
DCAA Seattle

	Action	Info
Commission		
Gen. Mgr.		
Asst. Gen. Mgr.		
Personnel		
Aviation		
Int. Dev.		
Marine	X	
Finance/Admin		
Technical Serv.		
Public Affairs		X
CEP/OPP		
No of Copies	2	

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DEC 15 2 41 PM '70
PORTLAND

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:

YFD-69
Ser 460-5775
14 DEC 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69
proposed maintenance program, approval of

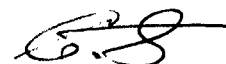
Ref: (a) The Port of Portland ltr of 27 Oct 1970

1. By reference (a), the Lessee furnished this office a copy of the proposed maintenance program for the subject drydock as required under Article 6(C) of Lease Contract N00024-70-L0010.
2. This office hereby approves the proposed maintenance schedule as submitted.
3. Accomplishment of the proposed maintenance program does not relieve the Lessee of the responsibility to accomplish unforeseen normal day to day maintenance which may arise from time to time during the rental year.

[Signature]
W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)
NAVREGFINCEN Wash. D.C.
DCAA Seattle

	Action	Info
Commission		
Gen Mgr.		
Asst. Gen. Mgr.		
Attorney		
Aviation		
Indust. Dev.		
Marine C+S		X
Finance/Admin.		
Technical Serv.		
Public Affairs		
E. W. Baum	X	
E. Prop. p		X
No of Copies	3	



October 27, 1970

Mr. W. L. Seth
Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District
Seattle, Washington 98115

Dear Mr. Seth:

Subject: Lease Contract N00024-70-L0010, Floating Drydock YFD-69
Proposed Maintenance Program

Reference - YFD-69 Ser 461-4875

We enclose a copy of our letter of January 16, 1970, to Mr. H. R. Benson with which we forwarded a copy of the subject maintenance program.

Apparently a copy was not furnished to your office nor do we find any record that it was ever approved.

The program has been in effect since February 1, 1970, and appropriate costs are being accumulated.

We respectfully request your approval of the program.

Cordially,



E. W. BAUER
Assistant Secretary-Treasurer

RWB:st
Enclosure

bc: / C. T. Styron
Carl Propp

RECEIVED
Aug 20 8 08 AM '70
THE PORT OF
PORTLAND

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

05-731.011

IN REPLY REFER TO:

YFD-69

Ser 460-4006

19 AUG 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District

To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69;
renewal of power feeder cables, 60 day extension, approval
of

Ref: (a) The Port of Portland ltr of 11 Aug 1970

1. By reference (a), the Port of Portland requested an extension
of 60 days to complete the renewal of power cables aboard the
subject drydock.

2. The request has been reviewed and is hereby approved.

W. L. SETH
W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		
Attorney		
Spec. Projects		
Public Affairs		
Aviation		
Finance/Admin.		
Ind. Devel.		
Marine	X	
Technical Serv.		
FFPropp		X
No. of Copies 2		

PSY500006472

August 18, 1970

Department of the Navy
Supervisor of Shipbuilding, Conversion,
and Repair, USN
13th Naval District
2400 11th Avenue S. W.
Seattle, Washington 98134

Attention: Mr. W. L. Seth

Gentlemen:

SUBJECT: YFD-69, Ser 460-3895
Lease Contract N00024-70-L0010, Floating Dry Dock YFD-69,
Pontoon Deck Painting, Cost Estimate, request for

REF: YFD-69, Ser 460-2795
The Port of Portland letter of June 20, 1970
The Port of Portland letter of June 25, 1970

Paragraph No. 2 in the Department of the Navy's letter YFD-69, Ser 460-3895, requests a cost estimate relative to coating YFD-69 pontoon deck in accordance with specifications D.M. 29 and The Port of Portland method used in the past.

Enclosure No. 1 outlines basic cost estimate for accomplishing coating as outlined in specifications D.M. 29.

Enclosure No. 2 outlines basic cost estimate for accomplishing coating by the method used in the past.

Very truly yours,

THE PORT OF PORTLAND

ORIGINAL SIGNED BY
OGDEN BEEMAN

OGDEN BEEMAN, Manager
Marine Department

Enclosures

CFP:ad

cc: C. F. Propp

August 11, 1970

Department of the Navy
Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District
2400 - 11th Avenue S. W.
Seattle, Washington 98134

Attention: Mr. W. L. Seth

Gentlemen:

SUBJECT: Lease Contract N0024-70-L0010, The Port of Portland, Floating
Drydock YFD-69; renewal of power feeder cables, authorization of
YFD-69, Serial 460-2623

Please refer to your letter of June 2, 1970, in response to our letter of
December 17, 1969.

Paragraph 5 of your letter allows the Lessee "120 days from the date of this
authorization to complete the work." Because of late delivery of material,
it is necessary for the Port to request an additional 60 days to complete
this work. We would appreciate receiving your written approval of this re-
quested extension of time.

Very truly yours,

THE PORT OF PORTLAND

OGDEN BERMAN, Manager
Marine Department

CFP:ad

cc: C. F. Propp

RECEIVED
AUG 19 8 34 AM '70
THE PORT OF
PORTLAND

DEPARTMENT OF THE NAVY

SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

05-73101

IN REPLY REFER TO:
YFD-69
Ser 460-3895

8 AUG 1970

From: Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District
To: The Port of Portland, Portland
Subj: Lease Contract N00024-70-L0010, Floating Dry Dock YFD-69,
Pontoon Deck Painting, Cost Estimate, request for
Ref: (a) The Port of Portland ltr of 20 Jun 1970
(b) The Port of Portland ltr of 25 Jun 1970

1. By references (a) and (b) the lessee submitted a cost estimate in the amount of \$51,000 for represerving the pontoon deck of the YFD-69 in conformance with specifications DM-29. The lessee stated that the preservation method used in the past had proven satisfactory and that the cost of any type of coating beyond that which had been used in the past should be borne by the Government. However, the lessee offered to share the cost on an equal basis in the event the Government elected to direct the application of the inorganic zinc coating.
2. In order that the Government may give further consideration to that project it is requested that the lessee furnish this office cost estimates indicating labor, material and overhead breakdowns for preservation of the pontoon deck both by inorganic zinc and by the method used in the past.
3. Request for this information should not be construed in any way as agreement on the part of the Government to share in the cost of this work.

W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		X
Attorney		
Spec. Projects		
Public Affairs		
Aviation		
Finance/Admin.		
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PSY500006477

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DEPARTMENT OF THE NAVY

SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN

13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:

YFD-69

Ser 460-3858

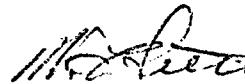
5 AUG 1970

From: Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District

To: The Port of Portland, Portland

Subj: Lease Contract N00024-70-L-0010, Floating Dry Dock YFD-69
Mooring Plans; approval of

1. The mooring plans submitted for floating dry dock YFD-69 have been reviewed and are hereby approved.


W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		X
Attorney		
Spec. Projects		
Public Affairs		
Aviation		
Finance/Admin.		
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Manne	X	
Technical Serv.		X
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PSY500006478

June 25, 1970

Department of the Navy
Supervisor of Shipbuilding,
Conversion and Repair, USN
13th Naval District
2400 - 11th Avenue S. W.
Seattle, Washington 98134

Gentlemen:

SUBJECT: YFD-69, Ser 460-2795
Lease Contract N00024-70-L00010, Floating Drydock YFD-69

Paragraph 2 of the referenced letter requires that The Port of Portland preserve the pontoon deck in accordance with Design Manual DM-29, in order to correct deficiencies noted in the annual inspection summary.

The Port of Portland agrees that preservation of the deck plating is necessary; however, we feel that the preservation method used in the past has been successful and that the cost of any type of coatings beyond what has been used in the past should be borne by the Department of the Navy.

The coating required in Design Manual DM-29 would cost approximately twice that of the normal preservative for this surface. We would agree to the use of inorganic zinc, provided that Navy will share the cost of this item on an equal basis with the Port. This is the same position we have previously taken during discussions on lease renewal, and we feel it is an equitable method for providing the better protection system.

Very truly yours,

THE PORT OF PORTLAND

OGDEN BEERMAN, Manager
Marine Department

OB:AJH:CTS:CFP:ad

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11th AVENUE S.W.
SEATTLE, WASHINGTON 98134
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JUN 11 9 20 AM '70
THE PORT OF
PORTLAND

File Morris
05-731.01

cc: ~~AB~~
CTS
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AJH

IN REPLY REFER TO:
YFD-69
Ser 460-2795

10 JUN 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69;
wooden pontoon decking, bilge blocks and runners

Ref: (a) The Port of Portland ltr of 17 Dec 1969
(b) The Port of Portland Dwg SK 1028 YFD-69; Bilge Blocks
and Runners
(c) The Port of Portland Dwg SK 1028 YFD-69; proposed
removal plan of Bilge Block Runner

1. By reference (a) the Lessee requested approval to completely remove the wooden deck previously installed on the existing steel pontoon deck aboard the YFD-69. The Lessee further requested approval to remove the bilge blocks, runners and associated operating gear.

2. Removal of the wooden deck is hereby authorized, provided upon removal, the steel pontoon deck of the YFD-69 is sandblasted and preserved in accordance with Design Manual DM-29.

3. With regard to the bilge blocks runners and associated operating equipment, removal of such is also granted, provided they do not form a structural part of the drydock and are removed in accordance with references (b) and (c). When removing these items from their fixed positions, caution should be taken to minimize the number of pieces and damage, in the event future demands will require this equipment to be re-installed. Upon removal, these items must be preserved and placed in protective storage. Further, areas that have been disturbed shall be restored to match surrounding areas.

4. The Lessee is advised that all costs of removing the wooden deck, cleaning and preserving the steel deck, removing, preserving, storing, and re-installation of the bilge blocks and runners, if required, are to be borne by the Lessee and no cost to the Government.

PSY500006480

YFD-69
Ser 460-2795

10 JUN 1970

5. It is requested that this office be advised when this work will commence in order that an inspection schedule can be prepared by this office.


W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)
NAVFINCEN Wash.D.C.
DCAA Seattle

A.V.H. CTS 05.731.01

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11th AVENUE S.W.
SEATTLE, WASHINGTON 98134

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THE PORT OF
PORTLAND

cc: OB
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(4) CKP
ATH

IN REPLY REFER TO:
YFD-69
Ser 460-2795

10 JUN 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69;
wooden pontoon decking, bilge blocks and runners

Ref: (a) The Port of Portland ltr of 17 Dec 1969
(b) The Port of Portland Dwg SK 1028 YFD-69; Bilge Blocks
and Runners
(c) The Port of Portland Dwg SK 1028 YFD-69; proposed
removal plan of Bilge Block Runner

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2. Removal of the wooden deck is hereby authorized, provided upon removal, the steel pontoon deck of the YFD-69 is sandblasted and preserved in accordance with Design Manual DM-29.

What does this require?
#?

3. With regard to the bilge blocks runners and associated operating equipment, removal of such is also granted, provided they do not form a structural part of the drydock and are removed in accordance with references (b) and (c). When removing these items from their fixed positions, caution should be taken to minimize the number of pieces and damage, in the event future demands will require this equipment to be re-installed. Upon removal, these items must be preserved and placed in protective storage. Further, areas that have been disturbed shall be restored to match surrounding areas.

4. The Lessee is advised that all costs of removing the wooden deck, cleaning and preserving the steel deck, removing, preserving, storing, and re-installation of the bilge blocks and runners, if required, are to be borne by the Lessee and no cost to the Government.

INORGANIC ZINC SILICATE 1 COAT 3 MIL

SPEC MIL-P-19449

ESTIMATED COST \$ 38,000

PSY500006482

YFD-69
Ser 460-2795

10 JUN 1970

5. It is requested that this office be advised when this work will commence in order that an inspection schedule can be prepared by this office.


W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)
NAVFINCEN Wash.D.C.
DCAA Seattle

TABLE 2-1--Continued

Coating Systems for Docking and Mooring Facilities

**PETE SETH Will CONFIRM
THIS AT A LATER DATE
C.S. 6/11/70**

Type of surface and exposure	Type of work	Primer coat	Intermediate coat or coats		System finish coat	Total minimum dry film thickness (mils)	Application and remarks
Pontoon deck of floating drydocks, including bilge-block runners.	New work and repainting.				(5) Inorganic Zinc silicate coating See remark (1).	3	(d) In System (2), primer and intermediate coats of MIL-P-19453 are to be applied only when System (2) is applied over unprimed ferrous metal. When System (2) is applied over System (1), <u>use only the two coats of MIL-P-19449.</u>
Exterior decks of floating structures, including walkways and platforms, with the exception of pontoon deck of floating drydocks.	New work.	Zinc Chromate MIL-P-735	Zinc Chromate MIL-P-735.	Paint, Gray Deck MIL-P-699, Type II	(6) Paint, Gray Deck MIL-P-699, Type II	5	(e) Apply System (12) before installing the insulation. After installing the insulation, the insulated surfaces shall be painted with two coats of System (10) finish coat. (f) Nonslip deck covering conforming to MIL-D-2905 shall be applied to an area 2 ft. square at the head and foot of stairs and ladders. Cement shall be applied to bare metal over entire area to be covered. Covering shall be laid in cleats 6 in. wide by 24 in. long, spaced 2 in. apart.
	Repainting	Zinc Chromate MIL-P-735 Spot-prime bare spots (1 mil minimum).		Paint, Gray Deck MIL-P-699, Type II (1½ mils minimum).	(7) Paint, Gray Deck MIL-P-699, Type II (1½ mils minimum).		
Interior surfaces, control house.	New work.	Zinc Chromate MIL-P-735	Zinc Chromate MIL-P-735.	Paint, Non-Flaming (Dry) MIL-P-17970, White, or MIL-P-17972, Gray	(8) Paint, Non-Flaming (Dry) MIL-P-17970, White, or MIL-P-17972, Gray	5	(g) In System (18), interior of fenders shall be filled completely with Bituminous Emulsion Paint MIL-C-15203 after the fenders have been welded in place. After filling, the emulsion shall be allowed to drain and the drain opening sealed. (h) System (21) should be used on all exterior surfaces of caissons that can be given proper surface preparation.
	Repainting	Zinc Chromate MIL-P-735 Spot-prime (1 mil minimum).		As specified above (1½ mils minimum).	(9) Finish coat as specified for System (8) (1½ mils minimum).		

29(3)-9-31

PSY500006484

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 H AVENUE S.W.
SEATTLE, WASHINGTON 98134
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THE PORT OF
PORTLAND

05.731.01
cc: OGS
CTS
(4) ~~CCP~~
AJH

IN REPLY REFER TO:
YFD-69
Ser 460-2795

10 JUN 1970

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland

Subj: Lease Contract N00024-70-L0010, Floating Drydock YFD-69;
wooden pontoon decking, bilge blocks and runners

Ref: (a) The Port of Portland ltr of 17 Dec 1969
(b) The Port of Portland Dwg SK 1028 YFD-69; Bilge Blocks
and Runners
(c) The Port of Portland Dwg SK 1028 YFD-69; proposed
removal plan of Bilge Block Runner

1. By reference (a) the Lessee requested approval to completely remove the wooden deck previously installed on the existing steel pontoon deck aboard the YFD-69. The Lessee further requested approval to remove the bilge blocks, runners and associated operating gear.

2. Removal of the wooden deck is hereby authorized, provided upon removal, the steel pontoon deck of the YFD-69 is sandblasted and preserved in accordance with Design Manual DM-29.

3. With regard to the bilge blocks runners and associated operating equipment, removal of such is also granted, provided they do not form a structural part of the drydock and are removed in accordance with references (b) and (c). When removing these items from their fixed positions, caution should be taken to minimize the number of pieces and damage, in the event future demands will require this equipment to be re-installed. Upon removal, these items must be preserved and placed in protective storage. Further, areas that have been disturbed shall be restored to match surrounding areas.

4. The Lessee is advised that all costs of removing the wooden deck, cleaning and preserving the steel deck, removing, preserving, storing, and re-installation of the bilge blocks and runners, if required, are to be borne by the Lessee and no cost to the Government.

PSY500006485

YFD-69
Ser 460-2795

10 JUN 1970

5. It is requested that this office be advised when this work will commence in order that an inspection schedule can be prepared by this office.


W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)
NAVFINCEN Wash.D.C.
DCAA Seattle

05-731,011
(2) MARIN
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DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

JUN 3 4 21 PM '70

IN REPLY REFER TO:
YFD-69
Ser 460-2623
2 JUN 1970

W/O 13722

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: The Port of Portland
Subj: Lease Contract N0024-70-L0010, The Port of Portland, Floating
Drydock YFD-69; renewal of power feeder cables, authorization of
Ref: (a) The Port of Portland ltr of 17 Dec 1969

1. By reference (a) the Lessee requested approval to replace the deteriorated 5-500 MCM feeder cables with plug-in attachments aboard the subject drydock pursuant to Article 6(c) of the Contract.
2. Since these feeder cables are defective and were furnished with the drydock approximately 25 years ago, the Lessee is hereby authorized to replace the five cables with the following:

THOF, 400 MCM, three conductor 400 Amp, 600 volt cable and ten new connectors at a cost not to exceed \$5,540.00

as a consideration under Contract N00024-70-L0010 in accordance with Article 6(c). This authorization is granted with the understanding that the Lessee will bear all labor and installation of the cables and connectors, and the Lessee agrees to complete the work within the funding limitations.

3. If actual material cost, as audited, is less than the above amount, the "Amount to be Paid" shall be credited only with audited costs.
4. All material excess by this authorization will be competitively sold to an accredited scrap dealer and the net proceeds of this disposal shall be credited to this authorization. Copy of the weight bill shall be furnished this office.
5. The Lessee shall be allowed 120 days from the date of this authorization to complete the work.


W. L. SETH
By direction

Copy to:
NAVSHIPSYSCOM (Code 07511)

PSY500006487

*Let me know what
Rec'm is* ← *Action CTS*
Then to CP **OB.**

February 17, 1970

Do #1
2
3

TO: Ogden Beeman

FROM: A. J. Heineman

SUBJECT: Navy Dry Dock Maintenance

4 @ TOTAL \$94,000
INCLUDING ENGR &
CONTINGENCIES

APPROVED BY C.I.C. 3/10/70

As a result of our negotiations with the Navy, and Mr. Propp's discussions with the contractors, it is believed that the following items should be provided during the remainder of this calendar year either in the Marine Department budget or by agreement with the contractors to accomplish.

1. Complete removal and disposal of the wooden deck. Access to the steel deck is required for maintenance and the wooden deck has deteriorated to where nearly complete replacement is required if it is to be reinstalled. The Navy will not admit that it is part of the dry dock, it does not show up in any of the records and even if it were a part of the dry dock, the Navy could say they do not want it replaced. The estimated cost of this work is \$16,000.
2. Removal of the majority of the bilge block runners at an estimated cost of \$14,000. The runners will be placed in storage and we will have the future requirements for reinstalling these when the dock is returned to the Navy. This removal will provide a deck with a minimum of obstructions yet will retain sufficient bilge blocks for the docking of small vessels. This feature has been agreed to by the contractors as the alternative to complete removal of the runners or lowering of the runners.
3. Construct new bilge blocks at an estimated cost of \$14,000 for the docking of large vessels. These would be constructed similar to those on dry dock #3. These would remain our property and if the Navy dock were released by the Port, the blocks would be available for use on dry dock #3.
4. Sandblast and paint the deck of YFD-69 as requested in the last inspection report by the Navy. The estimated cost for use of zinc chromate or a similar type product which will require the Navy's approval is \$32,000. The Navy in their inspection report specifies 1 coat of inorganic zinc, 1 tie coat, and 1 color coat. However we have indicated that this is not normal and will not pay for that elaborate a paint job.

The Navy has agreed that they will pay for the new feeder cables required for the dock and are sending specifications to Mr. Propp regarding the type of cable to purchase. It is estimated that these cables will cost \$10,000 with the cost to be deducted from rental payments due the Navy.

Navy Dry Dock Maintenance
February 17, 1970
Page 2

The Navy has also indicated that they might participate in the deck painting costs if a product such as inorganic zinc is used. It is planned to negotiate with them on this matter recommending the similar type coating as that used on dry dock #3 which is one coat of inorganic zinc only without the two overcoats. Mr. Propp is determining the difference in costs for the two paint systems and we will negotiate with the Navy towards sharing in the painting by the ratio determined.

Our planned final meeting with the Navy will be on March 5.


JH:mc

PSY500006491

OB
CT
File

February 17, 1970

TO: Adam HeinemanFROM: Carl F. ProppSUBJECT: Cost of pontoon deck preservation YFD-69

Various costs for alternate preservation methods and manner of accomplishment.

<u>Method (A)</u>	<u>Method (B)</u>	<u>Method (C)</u>
Sand blasting & coating inorganic zinc. Area based on 110% of area to cover overages. 52,272 sq. ft. plus 1,500 sq. ft. for bearers. 53,700 sq. ft. total at .95¢ per sq. ft.	Regular commercial blasting with two coat regular anti-corrosive paint. Price quoted as per Northwest Marine Iron Works. Bid on Nov. 14, 1969 Item No. 3, \$27,000.	Same as method No. (B) but accomplished by Port men (See work sheet.)

Total \$20,619.00

\$51,015.00 total.

Price quote. Carl Sloan
Albina Engine & Machine Wks.Work Sheet Method (C)

Sandblast to bare metal, Per unit. ----- 4 man hrs.
Material, Per unit ----- 3.50
Unit at \$5.00 per hr. ----- 23.50
\$23.50 X 537 units ----- \$12,619.00

Painting 2 coats by spray per unit ----- .5
Material per unit ----- 6.00
Unit at \$5.00 per hr. ----- 8.50
\$8.50 X 537 units ----- \$4,564.00

Total price, hard shipyard estimate \$17,183.00
plus 20% for learning \$20,619.00

Note: Unit is 100 sq. ft.



Port of Portland

Box 3529 Portland, Oregon 97208

503/233-8331

TWX: 910-464-6151

November 13, 1978

Department of the Navy
Supervisor of Shipbuilding
Conversion, and Repair, U.S.N.
Seattle, Washington 98115

Subject: Contract N00024-70-L-0010 Floating Drydock YFD-69
Correction Schedule for Deficiencies Noted on Annual Material Inspection

Reference: YFD-69 Ser. 469-4955

Respectively submitted is a schedule for the correction of deficiencies noted on Drydock YFD-69 at the annual material inspection.

Carl F. Propp
Manager
Ship Repair Yard

Encl.: Copy of deficiencies and the dates they are expected to be corrected.

offices also in Tokyo,
Chicago, Washington, D C.

PSY500006493

Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>	<u>Completion Date</u>
5	Pontoon deck and appurtenances have active and heavy deterioration extending full length and width of dock. Contractor renewed several areas of planking without preserving deck underneath.	Remove bilge and side blocks and planking and preserve in accordance with NAVSHIP Technical Manual 9190.	Sept. 1983 (Continuous)
6	a. Seven of the vertical ladders on outboard wingwalls are bent at normal waterline, and one stringer at frame 45-S is broken.	Straighten ladders and re-weld stringer.	Sept. 1980
	b. Paint peeling and rust started on outboard port wingwall, aft section.	Preserve per NAVSHIP Technical Manual 9190.	March 1979
	c. Frames 33-34, starboard, outboard wingwall, chafing pipes and brackets bent and broken, one pipe missing.	Fabricate and install new chafing assembly.	Sept. 1980
7	a. Various wood fenders along inboard wingwalls damaged and deteriorated.	Replace as necessary.	Dec. 1978 (Completed)
	b. All vertical ladders on inboard faces of wingwalls are missing.	None.	
8	Light rust on end bulkheads between dock section.	Blast and repaint at next self docking.	
9	Preservation badly deteriorated pontoon deck.	Represerve pontoon deck.	Sept. 1983 (Continuous)
12	Ballast compartment #3; some heavy rust on beam flange and bulkheads.	Spot blast and touch up coating system as necessary.	Sept. 1979
14a.	Ballast Compartment 5A; some heavy rust on beam flange, lighter rust on bulkheads.	Spot blast and touch up coating system as necessary	Sept. 1979
20	Ballast Compartment #11; light rust on outboard wingwall above normal contained water line.	Spot blast and touch up coating system as necessary.	Sept. 1979
23	Ballast Compartment 12A; light rust on overhead tank ½ full of water due to barge on dock.	Spot blast and touch up coating system as necessary.	Sept. 1979

Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>	<u>Completion Date</u>
37	Ballast Compartment 26; a few spots of very light rust.	Spot blast and touch up coating system as necessary.	Sept. 1979
38	Tank coating in excessent condition.	None.	
55	Air compressor does not have pressure gauge.	Install pressure gauge.	March 1979
59	Main dewatering pump #4P; installed new gear to mesh with stem, but not wired up.	Installed but not tested.	Aug. 1978
79	a. Ventilation blowers and heaters/heater control units located in the port and starboard safety decks are directly wired into the main power feeders. Cabling for these items are casually laying on the decks, draped along the bulkhead framing and in two instances pass through watertight doors preventing closure.	Remove heater/blowers and control breakers or reroute cables into wrie ways.	Dec. 1978
	b. Ground lead on main power control panel, located frame 23, port side main deck, has the insulation completely burnt off, the entire length of the cable. Further the main power cable entering the circuit breaker is currently disconnected and taped off.	Replace ground lead. Trouble shoot and replace or repair power cable as necessary.	Sept. 1978 (Completed)
81	Main contacts on the main pump starter "C" controller, located on the starboard side frame 44-45 on the safety deck, have badly pitted and scored contact surfaces.	Replace or face as necessary.	Sept. 1978 (Completed)
82	a. Power cable protruding from the inspection cover of the main switchboard is not properly protected. Current installation prevents closure of inspection cover.	Reroute cable through supplied shore power openings at the switchboard.	June 1979
	b. Power cable identified in item 'a' main deck scuttle preventing closure and posing a potential safety hazard if scuttle is stepped on.	Reroute cable through shore power openings located on the outboard sides. Properly support to prevent damage.	June 1979

Description of Deficiencies & Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>	<u>Completion Date</u>
82	c. Power cable located on the outboard port side on wingwalls are not properly supported to prevent damage in numerous areas.	Properly supprt to prevent cable damage.	June 1979
86	Connection box located at frame 53 port side on the safety deck level end inspection cover is loose and open to the atmosphere. Tar base material is being forced out onto the deck. Cable entering the connection box is 7P-407A.	Open and inspect to determine extent of damage. Repair as necessary. Reinstall and reseal inspection cover.	Sept. 1978 (Completed)
102	Vertical ladders; all vertical ladders on inboard wingwalls removed by Lessee; most vertical ladders on outboard wingwalls are bent.	Removal of inboard vertical ladders approved and stored ashore; straighten outboard ladders as necessary.	Sept. 1980
122	a. Compartment 44 bulkhead 8 and frame 2, insulation and lagging not replaced on repaired 4-inch IPS main steam line.	Install new lagging.	March 1979
	b. Steam condensate line, frame 56, port side, 3/4-inch line includes 14 inches of pipe plus 2 each valves and 1 union, not lagged.	Install new lagging.	March 1979
126	a. 5-inch water supply system pontoon deck, port and starboard, handwheels missing, stem broken or bent. Hangers missing.	Accomplish valve repairs. Paint as required, replace handwheels, hangers, and bolting.	Sept. 1980
	b. Salt water line is disconnected from its two flanged ends at compartment 33, frame 58, pontoon deck.	Flexible line deleted not required. Add flange to forward line.	March 1979
	c. Several fire hoses missing from stowages on main deck, port and starboard; one hose deteriorated at main deck port aft.	Replace fire hoses as necessary.	March 1979

Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>	<u>Completion Date</u>
148	Main deck announcing and call stations have unreadable and rusted out name plates.	Replace as necessary.	March 1979
151	Deflection targets missing from port wingwall and transit foundation not installed.	Install deflection targets and transit foundations.	Oct. 1979
159	Fixed and adjustable clinometers are not in agreement.	Adjust clinometers to reflect proper readings.	Sept. 1978 (Completed)
165	Life-lines and stanchions bent and broken on aft outrigger; lifelines not reinstalled on aft starboard main deck after last docking	Repair or replace stanchions as necessary, replace life lines after use.	Oct. 1979

Cleanliness and Housekeeping:

Rags lying loose throughout the compartments of the dock. Rags should be stored in suitable containers.	Store rags in suitable containers or enclosed storage area.	Nov. 1979
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Deficiencies Noted in Previous Reports

Deficiencies noted in previous reports were corrected except as noted herein.

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

Carl Propp: your action
630-4.1.1

*Sec. Staff Direct,
to Reps.
Def: W.E. Plymale
B. Croft*

IN REPLY REFER TO: (3)

YFD-69
Ser 460-1775

18 APR 1977

77 APR 20 AM 1:53

PORTLAND, OREGON

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Port of Portland, Portland, Oregon

Subj: Contract N00024-70-L0010, Port of Portland, Portland, Oregon,
Floating Drydock YFD-69; Joint Annual Material Inspection

Ref: (a) Contract N00024-70-L0010, General Provisions (Floating
Dry Dock Lease) NAVSHIPS (10 USC 2667)(Nov 1966)

Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69
(2) Pacific Marine Diving Company report of 29 March 1977
(3) Basin Soundings for YFD-69
(4) YFD-69 Tank Level indicator readings of 30 March 1977
(5) YFD-69 Submergence log of 30 March 1977

1. In accordance with Article 6 of reference (a) the joint annual material inspection report consisting of enclosures (1) through (5) is submitted for information and appropriate action.

2. Within 30 days the lessee is requested to submit a schedule for correction of the deficiencies noted in enclosure (1).

3. Upon correction of the noted deficiencies, a re-inspection will be accomplished by this office.

C. W. Schmidt
C. W. SCHMIDT
By direction

Copy to:
NAVSEA 070222 (2 cy)

PSY500006498

MATERIAL INSPECTION SUMMARY

FLOATING DRYDOCK

YFD-69
(Number)

N00024-70-L0010
(Contract)

For the period ending

March 1977
(Month and Year)

ENCLOSURE (1)

PSY500006499

PART I. General

1. YFD-69 is a Navy-owned 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18" free board, steel floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under facilities contract N00024-70-L0010. The drydock is moored at the Contractor's plant and has been in service at that plant since 1 December 1949.
3. The drydock is moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier. The two end sections and the center section were drydocked for inspection and underwater repairs during the period September/October 1975.
4. The Board appointed to inspect the drydock consists of Messrs. G. Beasley, F. Pelto, C. Kincaid, H. Rodriguez, and R. Wright from the office of the Supervisor of Shipbuilding, Conversion and Repair, Seattle, Washington. Messrs. Carl F. Propp and Daniel Uhrich represented The Port of Portland. The inspection of the drydock was conducted during the period of 28 March to 1 April 1977.
5. Previous inspection was made in October 1975.
6. The following components were placed in preservation without repair at last major overhaul:
None.
7. The following equipment is stored ashore: Spare parts.

PART II. Condition

1. The general condition of the floating drydock is graded as follows for the various major components.

PART II. Condition (Continued)

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Good
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Satisfactory
Utilities	(Part II 7)	Satisfactory
Miscellaneous	(Part II 8)	Satisfactory
Cleanliness and good housekeeping		Good
Preservation of Equipment not in use	(Part I 6)	Not Applicable
Overall material condition		Good

(In grading the above items, use the following terms as defined):

<u>Terms</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.
Good	Possible some deficiencies but no critical ones. Above the minimum standard required.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.

Terms(Continued)

Unsatisfactory

Definition

Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraph 3 through 8 following, is marked as follows:

Mark

S

Definition

Condition Satisfactory

U

Condition Unsatisfactory

M

* Condition Marginal

3. Condition of HullItem No.

	<u>Condition</u>	
	<u>Current</u>	<u>Previous</u>

Exterior

Pontoon

1. Bottom (See diver's report) (Enclosure (2))

S

S

Sides

S

S

2. Below waterline (See divers report)(Enclosure 2)

S

S

3. Waterline (See divers report)(Enclosure 2)

S

S

4. Above Waterline

S

S

5. Deck

M

M

Wingwalls

6. Outboard face

S

S

* Marginal conditions may render the facility unsafe for docking ships of the certified docking capacity within three years.

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
7.	Inboard face	S		S
8.	Ends	S		S
9.	Deck	S		S
<u>Interior</u>				
10.	Compartment No. 1	S		S
11.	Compartment No. 2	Not opened		S
12.	Compartment No. 3	Not opened		S
13.	Compartment No. 4	Not opened		S
14.	Compartment No. 5 and 5A	Not opened		S
15.	Compartment No. 6 and 6A	S		S (6A only)
16.	Compartment No. 7	S		S
17.	Compartment No. 8	Not opened		S
18.	Compartment No. 9	Not opened		S
19.	Compartment No. 10	S		S
20.	Compartment No. 11	Not opened		S
21.	Compartment No. 11A	S		S
22.	Compartment No. 12	Not opened		S
23.	Compartment No. 12A	Not opened		S

3. Condition of Hull (continued)

		<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
24.	Compartment No. 13	Not opened	S
25.	Compartment No. 14	Not opened	S
26.	Compartment No. 15	Not opened	S
27.	Compartment No. 16	S	S
28.	Compartment No. 17	Not opened	S
29.	Compartment No. 18	Not opened	S
30.	Compartment No. 19	Not opened	S
31.	Compartment No. 20	S	S
32.	Compartment No. 21	Not opened	S
33.	Compartment No. 22	Not opened	S
34.	Compartment No. 23	Not opened	S
35.	Compartment No. 24	S	S
36.	Compartment No. 25	Not opened	S
37.	Compartment No. 26	Not opened	S
38.	Compartment No. 27	Not opened	S
39.	Comartment No. 28	S	S

Ballast

Permanent: Type: None

Temporary: Type: Silt

.166

.25

Silt:

Average Depth in main ballast tanks compartments No. 1 through 16, above.

Item No. (Continued)

Item No. Item

Bridge Structure

40. Exterior

41. Interior

Crane Runways

42. Trusses

43. Rails

44. Wood decking

Connections between sections

45. Locking Logs

46. Joints

47. Bridges

48. Stern Gate

4. Conditon of Mechanical Installation

Item No. Item

49. Diesel Engines

50. Gasoline Engines

51. Boiler: Date last inspected

Date last tested:

Current Condition
Previous

Not Applicable



No. Installed No. Inspected Current Condition
Previous

0

0

0

Not applicable



6

PSY500006505

4. Condition of Mechanical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	Boiler:					
	Days idle since last inspection	Not Applicable				
		"	"			
52.	Water Distillation Unit					
	<u>Refrigeration Units</u>					
		"	"			
53.	Walk-in					
		"	"			
54.	Reach-in					
55.	Air Compressors	1	1	S		S
56.	Oil Purifiers	Not Applicable				
57.	Hydraulic Gate Operator	"	"			
		"	"			
58.	Hydraulic Steering Equipment					
59.	Main Dewatering Pumps	8	8	S		S
60.	Fresh Water Pumps	Not Applicable				
61.	Salt Water Pumps	"	"			
62.	Fuel Oil Pumps	"	"			
		"	"			
63.	Drainage Pumps					
64.	Vacuum Priming Pumps	4	4	S		S
65.	Automatic Grease Pumps	8	8	S		S

4. Condition of Mechanical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Weight-Handling Equipment</u>						
<u>Cranes</u>						
	Type:	Not Applicable ↓				
	Make:					
	Capacity:					
66.	Structural					
67.	Electrical					
68.	Mechanical					
69.	Safety					
70.	Derricks					
71.	Capstans	8	8	S		S
72.	Deck Winches	Not Applicable ↓				
73.	Anchor Windlass					
74.	Elevators					

5. Condition of Electrical Installation

5. Condition of Electrical Installation (Continued)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75.	AC	Not Applicable			
76.	DC	"	"		
<u>Motors</u>					
77.	AC	72	72	S	S
<u>Switchgear</u>					
78.	AC	8	8	S	S
<u>Panelboards</u>					
79.	AC	16	16	S	S
80.	DC	Not Applicable			
81.	Control Boards	2	2	S	S
<u>Transformers</u>					
82.	Power	Not Applicable			
83.	Lighting	2	2	S	S
84.	Power Cables	5	5	S	S
85.	Power Receptacles	10	10	S	S
86.	Junction Boxes, Distribution			S	S
86A.	Ship Service Welding & shore service cableways in wing wall deck	20	20	S	S
86B	Welding distribution boxes, wing wall deck	20	20	S	None

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Blocking</u>		
87.	Fixed Blocks	S	S
88.	Hauling Blocks	S	S
89.	Outriggers	S	S
90.	Flying Bridges	Not Applicable	
91.	Anchors	" "	
92.	Chain	S	M
93.	Hawsers	Not Applicable	
94.	Bollards	" "	
95.	Cleats	S	S
96.	Chocks	M	M
97.	Watertight Doors	S	S
98.	Hatches	S	S
99.	Airports	Not Applicable	
100.	Manholes and Covers	S	S
101.	Stairs, Accomodation Ladder	S	S
102.	Ladders, Vertical and Incline	S	S
103.	Handrails	S	S

6. Condition of Fittings (Continued)

Item No.	Item	Condition	
		Current	Previous
104.	Platforms	S	S
105.	Gratings	S	M
106.	Sidewall Jacking Equipment	Not Applicable	
	Pier Moorings		
107.	Spuds	S	S
108.	Moorings Guides	S	S
109.	Alignment between Pier and Sections	S	S
110.	Draft Gages	S	S
111.	Davits	Not Applicable	
112.	Fenders	S	S (See item 7)

7. Condition of Utilities

Piping System

113. Dewatering and Flooding

S S

Valves and Valve operators

114. Suction Valves

S S

115. Crossover Valves

S S

116. Discharge Valves

S S

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
117.	Flooding Valves	S	S
118.	Check Valves	S	S
119.	Foot Valves	Not Applicable	
120.	Flood Gates	S	S
121.	Sluice Gates	Not Applicable	
122.	Steam Supply System	S	S
123.	Fuel Oil System	Not Applicable	
124.	Lubricating Oil System	"	"
125.	Fresh Water System	"	"
126.	Fire Extinguishing and Flushing System	S	S
127.	CO ₂ Fixed System	Not Applicable	CO ₂ Bottles (portable) installed and maintained by lessee.
128.	Sprinkler System	"	
129.	Compressed Air System	U	S
130.	Air Vent System	S	S
<u>Heating and Ventilating System</u>			
131.	Piping and Ducts	Not Applicable	
132.	Ventilation and Exhaust Outlets	"	"
133.	Ventilation Fans	"	"
134.	Vent Valves	"	"

7. Condition of Utilities (Continued)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
135.	Unit Heaters		Not Applicable
136.	Unit Convectors		
137.	Heating Coils in Ballast Tanks		
138.	Range Hoods and Grease Filters		
	<u>Plumbing System</u>		
139.	Piping and Fittings		
140.	Fixtures		
	<u>Lighting System</u>		
	Interior		
141.	Fixtures	S	S
142.	Circuits	S	S
	Exterior		
143.	Standards	N/A	N/A
144.	Fixtures	S	S
145.	Circuits	S	S
146.	Searchlights	S	S
	<u>Communication System</u>		

7. Condition of Utilities (Continued)


<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
147.	Sound Powered Telephones	N/A		N/A
148.	Dial Telephone System	N/A		N/A
149.	Loud Speaker System	S		S
150.	General Alarm System	S		S

Water Level and Draft Indicator System

Type: Bristol

151.	Previous Inspection and Repair by Manufacturer:	<u>1954</u>	Present condition of the indicator system is satisfactory. All gauges corrected as necessary during inspection (see enclosure (4)).
		<u>Date</u>	
	Scheduled Date of Next Inspection by Manufacturer:	<u>None</u>	
		<u>Date</u>	
151A.	Comparative Water Reading System		
	Water Level-Indicator Comparative readings		

Miscellaneous Steel Tanks

152.	Fresh Water Supply	Not Applicable
152-A	Salt Water Tanks	
153.	Hot Water Storage	
154.	Cooling Water Expansion	
155.	Fuel Tanks	
156.	Lube Oil Tanks	

8. <u>Condition of Miscellaneous Installations</u>			<u>Current</u>	<u>Condition</u>	<u>Previous</u>
157.	Brows		S		S
158.	Galley and Mess Equipment		N/A		N/A
159.	Clinometers		S		S
	Life Saving Equipment				
160.	Boats	The lessee provides and maintains life rings on top deck.		Not applicable	
161.	Liferafts				
162.	Life rings				
163.	Vests				
164.	Cathodic Protection System				

9. Drydock Basin Soundings taken at drydock basin on 28 Mar 77 with the tide at 3' elevation, it is the Lessee's responsibility to maintain sufficient water depth beneath the drydock at all times.

10. Submergence Test

a. The test was conducted on 30 March 1977. The dock was submerged to 27'-9½" over 4'-0" keel blocks, and held in that position for 43 minutes. The total time to flood or pump the dock was 46 and 53 minutes, respectively.

b. A detailed summary log of the test is provided in Enclosure (5).

11. Careening:

Not applicable.

12. Maintenance and project list:

a. The following changes and additions to the dock's maintenance project and work list are recommended: Sandblast to white metal and preserve per NAVSHIPS Technical Manual the pontoon deck strip of 20 feet off center line, port and starboard, including appurtenances, to prevent a major future repair or decrease the docking capabilities. This seems to be a recurring deficiency noted on several Annual Material Inspections.

13. Improvements:

a. The following improvements to the dock are recommended: None

14. Missing major items:

a. Bilge block runners (bearlogs); 40% of the track is missing.

b. Vertical ladders; all the exterior ladders on the inboard side of the port and starboard wingwalls have been removed by the lessee.

c. Sheave bracket assemblies; bilge block runners at frames A, B, C, D, and E, port and starboard, have assemblies missing (10 units).

15. Auxiliary Craft: None

PART III DESCRIPTION OF DEFICIENCIES AND RECOMMENDED ACTION

ITEM NO.

DESCRIPTION OF DEFICIENCIES

RECOMMENDATIONS AND ACTIONS TO BE TAKEN

5 1/2 yr
Ralph

Pontoon deck and appurtenances have active and heavy deterioration extending full length and width of dock. Contractor renewed several areas of planking without preserving deck underneath.

CONTINUING

Remove bilge and side blocks and planking and preserve in accordance with NAVSHIP Technical Manual 9190

6
Gene

- a. Accomodation ladder rusted;
- b. Seven of the vertical ladders on outboard wing walls are bent at normal waterline, and one stringer at frame 45-S is broken
- c. Paint peeling and rust started on outboard port wing wall, aft section
- d. Frames 33-34, starboard, outboard wing wall, chafing pipes and brackets bent and broken, one pipe missing.

Preserve as per NAVSHIP Technical Manual 9190. Straighten ladders and re-weld stringer.

Preserve as per NAVSHIP Technical Manual 9190.

Fabricate and install new chafing assembly.

7
SAM

- a. Vertical wood fender on inboard wing wall, starboard, at frame one is rotted and broken
- b. All vertical ladders on inboard faces of wing walls are missing

Replace fender.

None.

Install fenders.

2 and 8
SAM

Vertical fenders (wood) are missing from both ends and both entrances to dock, on wing walls

9
Gene

- a. All soft patches (machinery accesses) in wing wall decks are rusting around edges and caulking is coming off.

Remove remainder of caulking, clean and preserve rusted areas, and install new caulking compound.

Rudy

- b. Power cable access (shore power receptacle) trunk under starboard wingwall deck, between frames 29-30 has a hole in vertical bulkhead on forward outboard side.

Weld up hole (approximately 3/8" dia.)

10-11-12
19-20-21
31-32-33
39-40-41
and

Tank coatings are in excellent condition. Average silt depth: .166 ft. (2 in.)

None.

3-5A-11-12A-27-26 ex. cond.

PART III (continuation)

ITEM NO.	DESCRIPTION OF DEFICIENCIES	RECOMMENDATIONS AND ACTIONS TO BE TAKEN
59	Electrical cable coming off main dewatering pump has a bracket that is not secured	Re-secure bracket.
<i>Rudy</i>	Main dewatering pump controller door does not latch	Repair latch
63	Vacuum priming pump, compartment 36, packing gland is loose and one nut is missing.	Tighten packing gland and replace nut.
	Vacuum priming pump, compartment 41, packing is worn from both ends of pump. One nut is missing from one of the packing glands	Replace packing and one nut.
65	Automatic grease pump; compartment 31, the grease reservoir of the unit is leaking grease at the bottom seal	Repair grease leakage.
<i>Gene</i>	Markings designating compartment number, frame number, etc., were not restored after painting	Restore marking
<i>Gene</i>	Capstan foundation at frame 40-41, starboard, has 2-inch crack on bottom, aft, inboard flange	Vee out and reweld.
<i>Rudy</i>	The rubber covering for the auxilliary controller push buttons is deteriorated (six out of eight aux. controllers).	Replace rubber covering.
<i>Gene</i>	Capstan small access cover has one bolt missing (Forward, topside, frame M, starboard)	Replace missing bolt.
86	Half of the power cables for the welding machine distribution disconnect switches are not run in conduit from the switch box to the wingwall deck	Install conduit to protect power cable.
<i>Rudy</i>	Starboard side frame 29 wing wall deck: Three single conductor cables are running across the deck and down an air vent (power cables for a disconnect switch)	Route cables so that they are not on the deck or protect power cables.
98	Pin at frame 47½ starboard has pin missing from hold open latch	Install new pin
100	Motor, 18" suction ballast, comp. 14 in compartment 48 is leaking oil, apparently from gasket area	Repair oil leak

PSY500006517

PART III (continuation)

ITEM NO.	DESCRIPTION OF DEFICIENCIES	RECOMMENDATIONS AND ACTIONS TO BE TAKEN
122 <i>Gene</i>	Compartment 44 bulkhead 8 main H.P. steam system, 2 foot long crack in 90° bend. Repaired by welding 4-inch IPS	Cut out cracked section, approximately 3 feet, and replace with new or similar material and wall thickness. Butt weld. Comply with requirements of MIL-STD-278E.
<i>Gene</i>	Compartment 44 frame 2, Main H.P. steam system. 2 foot long crack in horizontal run repaired by welding 4-inch IPS	Cut out cracked section, approximately 3 feet, and replace with new or similar material and wall thickness. Butt weld. Comply with requirements of MIL-STD-278.
<i>Gene</i>	Compartment 44 bulkhead 8 and frame 2, insulation and lagging not replaced on repaired 4-inch IPS main steam line	Install new insulation and lagging per MIL-STD-769F for steam heating systems. Paint to match existing.
<i>30718</i>	The following lines coming off the H.P. system main line are open to the atmosphere: line located at compartment 43, frame 6, starboard line located at compartment 41, frame 18, starboard	Plug if required. Plug if required.
<i>Gene</i>	H.P. steam main line has approximately 4 feet of lagging that is missing. (Compartment 44, frame 7, port)	Install missing lagging.
126 <i>Gene</i>	a. Five-inch water supply system pontoon deck, port and starboard, valves have handwheels missing, stem broken or bent. Hangers have bolts missing, 16 valves, flanged. <i>no change</i>	Remove valves to shop. Accomplish standard valve repairs. Sandblast valve exteriors. Paint with one coat inorganic zinc and cover coat to match existing. Install new gaskets and bolting. Replace missing handwheels. Replace missing bolting in hangers.
<i>Gene</i>	Drain line from water fountain is badly rusted; requires preservation (Frame 45, port, topside)	Preserve the line.
<i>Gene</i>	c. Salt water line is disconnected from its two flanged ends. (Compartment 33, frame 58, starboard)	Reconnect flanges
<i>Gene</i>	Compressed air system pontoon deck, port and starboard, numerous leaks throughout system. Valve stems broken or bent. Handwheels missing. Hose nipples deteriorated and rusty. Piping rusted.	Replace all valves with new (22) 2" 125#, Scrub End Globe Bronze, replace with new all hose nipples, missing hangers, and bolting. Sandblast pipe and paint with one coat inorganic zinc and cover coat to match existing; correct all leaks; test.

PSY500006518

PART III (continuation)

ITEM NO. DESCRIPTION OF DEFICIENCIES

RECOMMENDATIONS AND ACTIONS TO BE TAKEN

Rudy ~~111~~ All of the incandescent white light globes are missing throughout the drydocks machine spaces
~~112~~ Numerous wire guards for the incandescent lamps are missing

Account for globes and store

Install wire guards

~~113~~ Topside talk buttons' rubber coverings are deteriorated and the selector switch knobs are missing.

Replace rubber covers for the talk push buttons.

~~114~~ Deflection targets missing from port wing wall and transit foundation not installed

Install deflection targets and transit foundations.

159 Rudy Fixed and adjustable clinometers are not in agreement

Adjust clinometers to reflect proper readings.

CLEANLINESS AND HOUSEKEEPING:

The following items were found aboard the drydock and are considered fire and safety hazards:

Ralph ~~115~~ Five 1-gal. glass containers, two contain oil and the others appear to have cleaning solvents (Compartment 38, frame 33, port)

Remove glass containers from dock. Store metal containers in a safe location.

~~116~~ Two 1-gal. glass containers appear to have cleaning solvent and one 1-gal. metal container with oil and without a lid. (Compartment 37, frame 38, starboard)

~~117~~ End section, aft, starboard, topside, needs cleaning, canvas, 5-gal. can, pallet, sand grit, etc. scattered on the deck

Clean area

Rags lying loose throughout the compartments of the dock. Rags should be stored in suitable containers

Store rags in suitable containers or enclosed storage area.

PART IV DEFICIENCIES NOTED IN PREVIOUS REPORTS

Corrected items:

1, 2, 3, 4, 5, 6, 13, 14, 15, 16, 18, 19,
20, 21, 22, 23, 24, 25, 30, 32, 33, 34,
35, 36, 37, 38, 39, 40, 42, 43, 44, 47,
48, 49, and 51

Items not started:

7, 8, 12, 17, 27, 28, 41, 45*, and 46**

* Reported as "never installed"

** Removed by Port of Portland after
fatality involving ladders.

Items not completed:

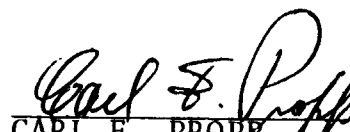
9, 10, 11, 15, 26, 29, and 50

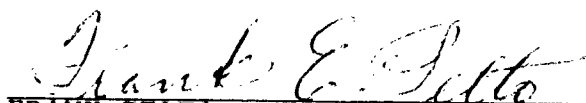
PART V. CERTIFICATION AND SIGNATURES

This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP), USN, Seattle and representatives of the Contractor.



GLEN BEASLEY
SUPSHIP SEATTLE Senior Board Member


CARL F. PROPP
Port of Portland




FRANK PELTO
SUPSHIP Seattle Board Member



DANIEL UHRICH
Port of Portland



HECTOR RODRIGUEZ
SUPSHIP Seattle Board Member

 CODE 155.1H2

ROYCE WRIGHT
SUPSHIP Seattle Board Member

 CODE 155-16
CLAYTON KINCAID
SUPSHIP SEATTLE Board Member

PACIFIC MARINE DIVING COMPANY INC.

20533 S.E. Evergreen Hwy., Camas, Wash. 98607

29 March 1977

Type of Survey: Hull, Drydock # 1
Date of Survey: 29-30 March 1977
Ordered by: Port of Portland
Location: Swan Island, Portland, Oregon
Visibility: 3 feet

On March 29th & 30th, 1977, I made an underwater inspection of Drydock #1 at the Port of Portland, Swan Island, Portland, Oregon. The findings of this survey were as follows:

There were very few areas where the plates were other than flat and level. In these few areas there is no more than $\frac{1}{8}$ " inch of air trapped and there is no sign of paint deterioration in these areas.

The above findings were located on the hull with the aid of a continuous belly band which was moved along the hull as the inspection was performed. These movements were in 6' increments.

Also, upon inspection of the aprons on both ends of hull, found them to be in very good condition, no rust or damage found.

This hull, in my opinion, is in excellent condition, however - rusted areas were found approximately 40' in from west side of drydock between frame Nos. 47 & 48. These rust spots were 18" by 36". Also these were very square. These rusted areas were also found approximately 40' in from east side of drydock between frame Nos. 47 & 43. There were no signs of electrolisis or damage caused by other debris.

Sincerely,

PACIFIC MARINE DIVING COMPANY INC.



F. A. Sanders
Marine Diver

ENCLOSURE (2)

Diving

Salvage

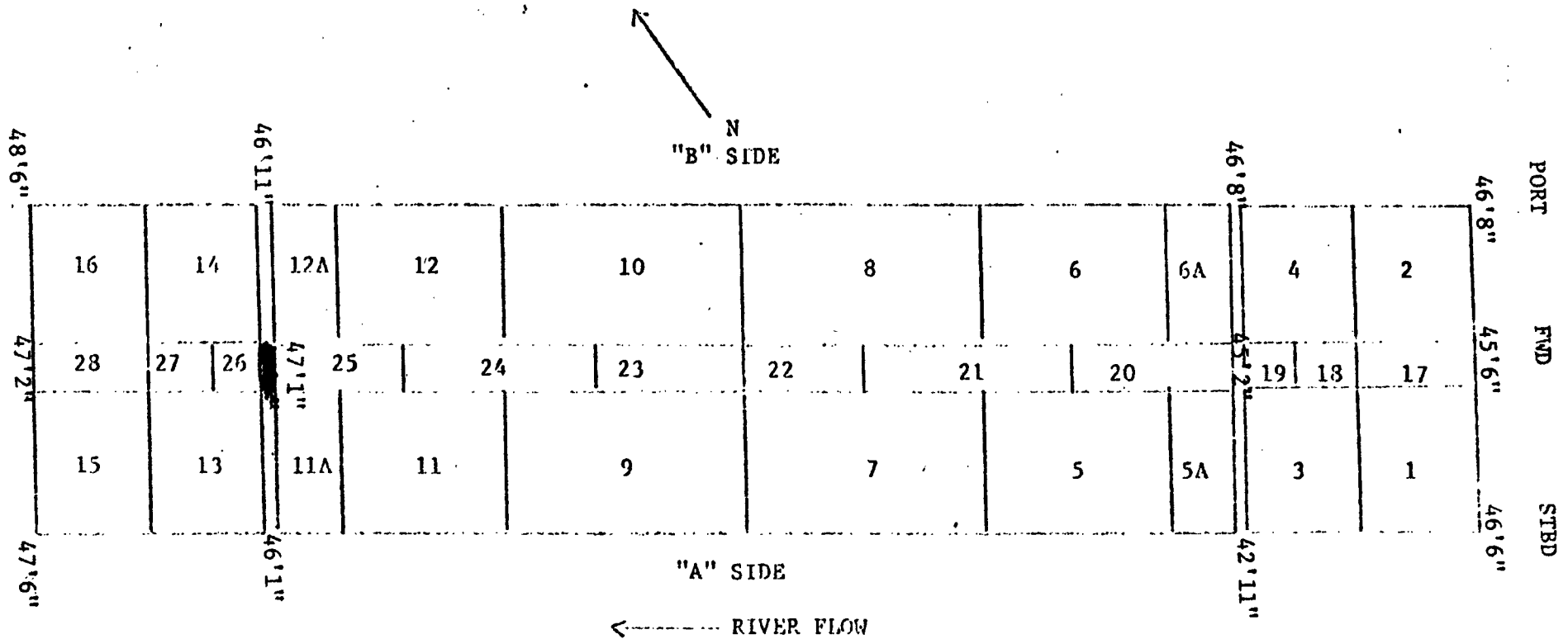
Surveying

Marine Construction

Towing

PSY500006522

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

Basin soundings YFD-69, 3/28/77, 1030. River stage was 3'.
Reading adjusted to 0' river.

A. Keith Murdock, Dockmaster

ENCLOSURE (3)

PSY500006523

INDICATOR READINGS AND ACTUAL WATER LEVEL

NAVY DRYDOCK

Date: 30 March 1977

Time: 10:30 a.m.

Operator: Navy Inspection

Vessel: YFD-69

	COMP 16	COMP 14	COMP 12	COMP 10	COMP 8	COMP 6	COMP 4	COMP 2
Indicator Readings (after calibration)	10'3"	10'0"	10'3"	10'2"	10'6"	10'3"	10'0"	10'0"
Actual water level	10'1½"	10'1-1/8"	10'3¼"	10'2-3/4"	10'5½"	10'5-3/4"	10'2-1/4"	10'2"

Freeboard: aft = 40'2"

Freeboard: fwd = 39'10"

	COMP 15	COMP 13	COMP 11	COMP 9	COMP 7	COMP 5	COMP 3	COMP 1
Indicator Readings	10'6"	10'6"	10'0"	10'0"	10'2"	10'0"	10'2"	10'0"
Actual water level	10'7-1/4"	10'7"	10'1-3/8"	10'1-3/8"	10'1½"	10'2-3/4"	10'2¼"	10'1-3/4"

Indicator Readings
Actual Draft

Draft fwd
12'9"
12'10"

Deficient draft gauges:
All deficient gauges
calibrated during inspection.

Indicator Readings
Actual Draft

Draft aft
13'3"
13'1-¼"

Enclosure (4)

PSY500006524

1. Summary log of the floating drydock YFD-69 deep submergence test conducted 30 March 1977 at the Port of Portland, Portland, Oregon: Dock flooded to 10' contained water for gauge test - pumped up to 7'0" draft to begin submergence test.

- * a. Flooding commenced at 13:06 with flood, discharge, and suction valves fully opened.
- b. Dock commenced submergence with a draft of 6'6" forward and 7'0" aft.
- c. Keel blocks set four feet high.
- d. Pontoon deck reached zero freeboard at 13:30 with a draft of 14'9: forward and 16'0" aft; and a list of one degree port.
- e. The normal maximum submergence was reached at 13:47 with 4'2½" freeboard.
- f. All ballast tanks air vents working properly.
- g. All flood, suction, and discharge valves remained fully opened while dock was held at the normal maximum submergence.
- h. Dock held at the normal maximum submergence for 43 minutes.
- i. Dewatering operation started at 14:30 with flooding valves fully closed.
- j. Deck dry 14:53.
- k. Dock emerged with an even keel and without sluggishness, reaching a draft of 7'0" at 15:23.

* Valve opening indicators on panel board registered from 78% to 96% open when valves were opened 100%.

No deflection scopes aboard.

PSY500006525

Enclosure (5)

PACIFIC MARINE DIVING COMPANY INC.

20533 S.E. Evergreen Hwy., Camas, Wash. 98607

29 March 1977

Type of Survey: Hull, Drydock # 1
Date of Survey: 29-30 March 1977
Ordered by: Port of Portland
Location: Swan Island, Portland, Oregon
Visibility: 3 feet

On March 29th & 30th, 1977, I made an underwater inspection of Drydock #1 at the Port of Portland, Swan Island, Portland, Oregon. The findings of this survey were as follows:

There were very few areas where the plates were other than flat and level. In these few areas there is no more than $\frac{1}{4}$ " inch of air trapped and there is no sign of paint deterioration in these areas.


The above findings were located on the hull with the aid of a continuous belly band which was moved along the hull as the inspection was performed. These movements were in 6' increments.

Also, upon inspection of the aprons on both ends of hull, found them to be in very good condition, no rust or damage found.

This hull, in my opinion, is in excellent condition, however - rusted areas were found approximately 40' in from west side of drydock between frame Nos. 47 & 48. These rust spots were 18" by 36". Also these were very square. These rusted areas were also found approximately 40' in from east side of drydock between frame Nos. 47 & 48. There were no signs of electrolysis or damage caused by other debris.

Sincerely,

PACIFIC MARINE DIVING COMPANY INC.



F. A. Sanders
Marine Diver

June 13, 1977



Port of Portland

Box 3509 Portland, Oregon 97208
503/237-8331
TWX 910-464-6151

C.W. Schmidt
Supervisor of Shipbuilding,
Conversion & Repair, USN
Seattle, Washington 98115

RE: YFD-69
Ser 460-1775

Dear Sir:

In accordance with Contract N00024-70-L0010, General Provisions (Floating Dry Dock Lease) NAVSHIPS (10 USC 2667) (Nov 1966), we are enclosing a schedule for correction of the deficiencies noted in the Annual Report of Material Inspection of Floating Drydock YFD-69.

Those items that are starred have been completed and are ready for re-inspection.

Sincerely,


Carl F. Propp, Manager
Swan Island Ship Repair Yard

CFP:ja

cc: D. Neset

offices also in Tokyo,
Chicago, Washington, D.C.

PSY500006527

630-4,1
630-1
Act. - C Propp
Info - D. Inset
IN REPLY REFER TO:
YFD-69
Ser 460-4955
22 AUG 1978
J.A.
PLEASE FILE
C.P.
GIVE MURDOCK
AND FOREMAN
COPIES OF
COVER LETTER

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
SEATTLE, WASHINGTON 98115

From: Supervisor of Shipbuilding, Conversion, and Repair, USN, Seattle
To: Port of Portland, Portland, Oregon

Subj: Contract N00024-70-L-0010, Floating Drydock YFD-69; joint annual material inspection

Ref: (a) Contract N00024-70-L-0010 General Provisions

Encl: (1) Annual Report of Material Inspection of YFD-69
(2) Underwater Hull Inspection Report

1. In accordance with Article 6 of reference (a) the joint annual material inspection report consisting of enclosures (1) and (2) is submitted for information and appropriate action.

2. Within thirty days the lessee is requested to submit a schedule for correction of the deficiencies noted in enclosure (1).

3. Upon correction of the noted deficiencies, a re-inspection will be accomplished by this command.

J. D. WINSTON
By direction

Copy to:
NAVSEA 070142 (2 cy)
Port of Portland (Attn: C. F. Propp)

MR. MURDOCK
LET PUT TO-GETHER
SCHEDULE AS
REQUESTED
C.F.D.

MATERIAL INSPECTION SUMMARY

FLOATING DRYDOCK

YFD-69

N00024-70-L-0010

For the period ending

July 1978

ENCLOSURE (1)

PSY500006529

PART I. General

1. YFD-69 is a Navy-owned 528-foot overall length, 90-foot beam, 14,000 ton displacement at 18-inch free board, steel floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under facilities contract N00024-70-L-0010. The drydock is moored at the Contractor's plant and has been in service at that plant since 1 December 1949.
3. The drydock is moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier. The two end sections and the center section were drydocked for inspection and underwater repairs during the period September/October 1975.
4. The Board appointed to inspect the drydock consists of Messrs. C. W. Schmidt, G. Beasley, J. Curry, and M. Ford from the office of the Supervisor of Shipbuilding, Conversion, and Repair, Seattle, Washington. Messrs. Carl F. Propp and Daniel Uhrich represented the Port of Portland. The inspection of the drydock was conducted during the period of 24 - 27 July 1978.
5. Previous inspection was made in March 1977.
6. The following components were placed in perservation without repair at last major overhaul: None.
7. The following equipment is stored ashore: Spare parts.

PART II. Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>	<u>Grade</u>
Hull	Good (Part II 3)
Mechanical	Good (Part II 4)
Electrical	Good (Part II 5)
Fittings	Satisfactory (Part II 6)
Utilities	Satisfactory (Part II 7)
Miscellaneous	Satisfactory (Part II 8)

PART II (continued)

Cleanliness and good housekeeping	Good
Preservation of equipment not in use	Not applicable (Part I 6)
Overall material condition	Good

(In grading the above items, use the following terms as defined):

<u>Terms</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable
Excellent	Not vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.
Good	Possibly some deficiencies but no critical ones. Above the minimum standard required.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraph 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
M	Condition Marginal (Marginal conditions may render the facility unsafe for docking ships of the certified docking capacity within three years.

<u>3. Condition of Hull</u>	<u>Current</u>	<u>Previous</u>
<u>Item No.</u>		
<u>Exterior Pontoon</u>		
1. Bottom (see diver's report, enclosure (2))	S	S
2. Sides, below waterline (see enclosure (2))	S	S

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
3.	Sides, waterline (see enclosure (2))	S	S
4.	Sides, above waterline	S	S
5.	Deck	M	M
<u>Exterior Wingwalls</u>			
6.	Outboard face	S	S
7.	Inboard face	S	S
8.	Ends	S	S
9.	Deck	S	S
<u>Interior Compartments</u>			
10.	No. 1	S	S
11.	2	Not opened	N/o
12.	3	S	N/o
13.	4.	Not opened	N/o
14.	5	Not opened	N/o
14A	5A	s	N/o
15.	6	Not opened	N/o
15A	6A	Not opened	S
16.	7	Not opened	S
17.	8	Not opened	N/o
18.	9	Not opened	N/o
19.	10	Not opened	S
20.	11	S	N/o
21.	11A	Not opened	S

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
22.	No. 12	Not opened	N/o
23.	12A	S	N/o
24.	13	Not opened	N/o
25.	14	Not opened	N/o
26.	15	Not opened	N/o
27.	16	S	S
28.	17	Not opened	N/o
29.	18	Not opened	N/o
30.	19	Not opened	N/o
31.	20	Not opened	S
32.	21	Not opened	N/o
33.	22	Not opened	N/o
34.	23	Not opened	N/o
35.	24	Not opened	S
36.	25	Not opened	N/o
37.	26	S	N/o
38.	27	S	N/o
39.	28	Not opened	S

Ballast Permanent: Type: None

Temporary: Type: Silt

Not measured .166

40.	Bridge Structure, exterior	Not applicable
41.	Bridge Structure, interior	Not applicable
42.	Crane Runways, trusses	Not applicable
43.	Crane Runways, rails	Not applicable
44.	Crane Runways, wood decking	Not applicable

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>		
<u>Connections between sections</u>					
45.	Locking logs	Not applicable			
46.	Joints	Not applicable			
47.	Bridges	Not applicable			
48.	Stern Gate	Not applicable			
4. <u>Condition of Mechanical Installation</u>					
<u>No.</u>	<u>Item</u>	<u>Installed</u>	<u>Inspected</u>	<u>Current</u>	<u>Previous</u>
49.	Diesel Engines	0		Not applicable	
50.	Gasoline Engines	0		Not applicable	
51.	Boiler, date last inspected: date last tested: days idle since last inspection:	0		Not applicable	
52.	Water distillation unit			Not applicable	
53.	Walk-in refrigeration units			Not applicable	
54.	Reach-in refrigeration units			Not applicable	
55.	Air compressors	1	1	S	S
56.	Oil purifiers			Not applicable	
57.	Hydraulic gate operator			Not applicable	
58.	Hydraulic steering equipment			Not applicable	
59.	Main dewatering pumps	8	8	S	S
60.	Fresh water pumps			Not applicable	
61.	Salt water pumps			Not applicable	
62.	Fuel oil pumps			Not applicable	
63.	Drainage pumps			Not applicable	
64.	Vacuum priming pumps	4	4	S	S
65.	Automatic grease pumps	8	8	S	S

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Installed</u>	<u>Inspected</u>	<u>Current</u>	<u>Previous</u>
Weight-Handling Equipment					
	Cranes, type: make: capacity:	Not applicable			
66.	Structural	Not applicable			
67.	Electrical	Not applicable			
68.	Mechanical	Not applicable			
69.	Safety	Not applicable			
70.	Derricks	Not applicable			
71.	Capstans	8	8	S	S
72.	Deck winches	Not applicable			
73.	Anchor windlass	Not applicable			
74.	Elevators	Not applicable			
5. <u>Condition of Electrical Installation</u>					
75.	AC Generators	Not applicable			
76.	DC Generators	Not applicable			
77.	AC Motors	72	72	S	S
78.	AC Switchgear	8	8	S	S
79.	AC Panelboards	16	16	S	S
80.	DC Panelboards	Not applicable			
81.	Control Boards	2	2	S	S
82.	Power Transformers	Not applicable			
83.	Lighting Transformers	2	2	S	S
84.	Power cables	5	5	S	S
85.	Power receptacles	10	10	S	S
86.	Junction boxes, Distribution			S	S

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Installed</u>	<u>Inspected</u>	<u>Current</u>	<u>Previous</u>
86A.	Ship Service Welding and shore service cableways in wingwall deck	20	20	S	S
86B.	Welding distribution boxes, wingwall deck	20	20	S	S
87.	Blocking, fixed			S	S
88.	Blocking, hauling blocks			S	S
89.	Outriggers			S	S
90.	Flying bridges	Not applicable			
91.	Anchors	Not applicable			
92.	Chain			S	S
93.	Hawsers	Not applicable			
94.	Bollards	Not applicable			
95.	Cleats			S	M
96.	Chocks			S	S
97.	Watertight doors			S	S
98.	Hatches	Not applicable			
99.	Air ports			S	S
100.	Manholes and Covers			S	S
101.	Stairs, Accomodation ladder			S	S
102.	Ladders, vertical and incline			S	S
103.	Handrails			S	S
104.	Platforms			S	S
105.	Gratings			S	S
106.	Sidewall Jacking Equipment	Not applicable			

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
107.	Pier Moorings; spuds	S	S
108.	Mooring Guides	S	S
109.	Pier Mooring, alignment between pier and sections	S	S
110.	Draft Gages	S	S
111.	Davits	Not applicable	
112.	Fenders	S	S
7.	<u>Condition of Utilities</u>		
113.	Piping system; dewatering and flooding	S	S
	Valves and valve operators		
114.	Suction valves	S	S
115.	Crossover valves	S	S
116.	Discharge valves	S	S
117.	Flooding valves	S	S
118.	Check valves	S	S
119.	Foot valves	Not applicable	
120.	Flood gates	S	S
121.	Sluice gates	Not applicable	
122.	Steam supply system	S	S
123.	Fuel oil system	Not applicable	
124.	Lubricating oil system	Not applicable	
125.	Fresh water system	Not applicable	
126.	Fire extinguishing and flushing system	S	S
127.	CO ₂ Fixed system (installed and maintained by lessee)	Not applicable	

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
128.	Sprinkler system	Not applicable	
129.	Compressed air system	S	U
130.	Air vent system	S	S
	Heating and ventilating system		
131.	Piping and ducts	Not applicable	
132.	Ventilation and exhaust outlets	Not applicable	
133.	Ventilation fans	Not applicable	
134.	Vent valves	Not applicable	
135.	Unit heaters	Not applicable	
136.	Unit convectors	Not applicable	
137.	Heating coils in ballast tanks	Not applicable	
138.	Range hoods and grease filters	Not applicable	
139.	Plumbing; piping and fittings	Not applicable	
140.	Plumbing; fixtures	Not applicable	
	Interior Lighting System		
141.	Fixtures	S	S
142.	Circuits	S	S
	Exterior Lighting System		
143.	Standards	Not applicable	
144.	Fixtures	S	S
145.	Circuits	S	S
146.	Searchlights (stored)	S	S

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
Communication System			
147.	Sound powered telephones	S	S
148.	Dial telephone system	Not applicable	
149.	Loud speaker system	S	S
150.	General alarm system	S	S
Water Level and Draft Indicator System			
Type: Bristol			
151.	Previous inspection and repair by manufacturer: 1954 Scheduled date of next inspection by manufacturer: None (present condition of the indicator system is satisfactory).		
151A.	Comparative Water Reading System Water level-indicator comparative readings (See attachment No. 2)		
Miscellaneous Steel Tanks			
152.	Fresh water supply	Not applicable	
152a.	Salt water tanks	Not applicable	
153.	Hot water storage	Not applicable	
154.	Cooling water expansion	Not applicable	
155.	Fuel tanks	Not applicable	
156.	Lube oil tanks	Not applicable	
8.	<u>Condition of Miscellaneous Installations</u>		
157.	Brows	S	S
158.	Galley and mess equipment	Not applicable	
159.	Clinometers	S	S
Life-Saving Equipment			
160.	Boats	Not applicable	
161.	Life rafts	Not applicable	

PART II (continued)

<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
162.	Life rings (The lessee provides and maintains life rings on top deck.)		
163.	Vests	Not applicable	
164.	Cathodic Protection System	Not applicable	

9. Drydock Basin Soundings taken at the drydock basin on 13 June 1978. (see attachment No. 1)

10. Submergence Test No submergence test was conducted. Barge UMPQUA 5 was in the dock for bottom repairs.

11. Careening Not applicable.

12. Maintenance and project list

The following changes and additions to the dock's maintenance project and work list are recommended: Sandblast to white metal and preserve per NAVSHIPS Technical Manual the pontoon deck strip of 20 feet off center line, port and starboard, including appurtenances, to prevent a major future repair or decrease of the docking capabilities. This seems to be a recurring deficiency noted on several annual material inspections.

13. Improvements

The following improvements to the dock are recommended: None

14. Missing Major Items

a. Bilge block runners (bearlogs); 40% of the track is missing.

b. Vertical ladders: all the exterior ladders on the inboard side of the port and starboard wingwalls have been removed by the lessee.

c. Sheave bracket assemblies: bilge block runners at frames A, B, C, D, and E, port and starboard, have assemblies missing (10 units).

15. Auxiliary Craft: None

PART III Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>
5	Pontoon deck and appurtenances have active and heavy deterioration extending full length and width of dock. Contractor renewed several areas of planking without preserving deck underneath.	Remove bilge and side blocks and planking and preserve in accordance with NAVSHIP Technical Manual 9190.
6	a. Seven of the vertical ladders on outboard wingwalls are bent at normal waterline, and one stringer at frame 45-S is broken.	Straighten ladders and re-weld stringer.
	b. Paint peeling and rust started on outboard port wingwall, aft section.	Preserve per NAVSHIP Technical Manual 9190.
	c. Frames 33-34, starboard, outboard wingwall, chafing pipes and brackets bent and broken, one pipe missing.	Fabricate and install new chafing assembly.
7	a. Various wood fenders along inboard wingwalls damaged and deteriorated.	Replace as necessary
	b. All vertical ladders on inboard faces of wingwalls are missing.	None.
8	Light rust on end bulkheads between dock sections.	Blast and repaint at next self docking.
9	Preservation badly deteriorated pontoon deck.	Represerve pontoon deck.
12	Ballast Compartment #3; some heavy rust on beam flange and bulkheads.	Spot blast and touch up coating system as necessary.
14a	Ballast Compartment 5A; some heavy rust on beam flange, lighter rust on bulkheads.	Spot blast and touch up coating system as necessary.
20	Ballast Compartment #11; light rust on outboard wingwall above normal contained water line.	Spot blast and touch up coating system as necessary.
23	Ballast Compartment 12A; light rust on overhead tank $\frac{1}{2}$ full of water due to barge on dock.	Spot blast and touch up coating system as necessary.

PART III (continued)

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>
37	Ballast Compartment 26; a few spots of very light rust	Spot blast and touch up coating system as necessary.
38	Tank coating in excessent condition.	None
55	Air compressor does not have pressure gauge.	Install pressure gauge.
59	Main dewatering pump #4P; installed new gear to mesh with stem, but not wired up.	Installed but not tested.
79	a. Ventilation blowers and heaters/ heater control units located in the port and starboard safety decks are directly wired into the main power feeders. Cabling for these items are casually laying on the decks, draped along the bulkhead framing and in two instances pass through watertight doors preventing closure.	Remove heater/blowers and control breakers or reroute cables into wrie ways.
	b. Ground lead on main power control panel, located frame 23, port side main deck, has the insulation completely burnt off, the entire length of the cable. Further, the main power cable entering the circuit breaker is currently disconnected and taped off.	Replace ground lead. Trouble shoot and replace or repair power cable as necessary.
81	Main contacts on the main pump starter "C" controller, located on the starboard side frame 44-45 on the safety deck, have badly pitted and scored contact surfaces.	Replace or face as necessary.
82	a. Power cable protruding from the inspection cover of the main switchboard is not properly protected. Current installation prevents closure of inspection cover.	Reroute cable through supplied shore power openings at the switchboard.
	b. Power cable identified in item 'a' main deck scuttle preventing closure and posing a potential safety hazard if scuttle is stepped on.	Reroute cable through shore power openings located on the outboard sides. Properly support to prevent damage.

PART III (continued)

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>
82	c. Power cable located on the outboard port side on wingwalls are not properly supported to prevent damage in numerous areas.	Properly support to prevent cable damage.
86	Connection box located at frame 53 port side on the safety deck level end inspection cover is loose and and open to the atmosphere. Tar base material is being forced out onto the deck. Cable entering the connection box is 7P-407A.	Open and inspect to determine extent of damage. Repair as necessary. Reinstall and reseal inspection cover.
102	Vertical ladders; all vertical ladders on inboard wingwalls removed by Lessee; most vertical ladders on outboard wingwalls are bent.	Removal of inboard vertical ladders approved and stored ashore; straighten outboard ladders as necessary.
122.	a. Compartment 44 bulkhead 8 and frame 2, insulation and lagging not replaced on repaired 4-inch IPS main steam line.	Install new lagging.
	b. Steam condensate line, frame 56, port side, 3/4-inch line includes 14 inches of pipe plus 2 each valves and 1 union, not lagged.	Install new lagging.
126	a. 5-inch water supply system pontoon deck, port and starboard, handwheels missing, stem broken or bent. Hangers missing.	Accomplish valve repairs. Paint as required, replace handwheels, hangers, and bolting.
	b. Salt water line is disconnected from its two flanged ends at compartment 33, frame 58, pontoon deck.	Flexible line deleted not required. Add flange to forward line.
	c. Several fire hoses missing from stowages on main deck, port and starboard; one hose deteriorated at main deck port aft.	Replace fire hoses as necessary.
148	Main deck announcing and call stations have unreadable and rusted out name plates.	Replace as necessary.
151	Deflection targests missing from port wingwall and transit foundation not installed.	Install deflection targets and transit foundations.

PART III (continued)

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendation for Action To Be Taken</u>
159	Fixed and adjustable clinometers are not in agreement.	Adjust clinometers to reflect proper readings.
165	Life-lines and stanchions bent and broken on aft outrigger; lifelines not reinstalled on aft starboard main deck after last docking.	Repair or replace stanchions as necessary, replace life lines after use.

Cleanliness and Housekeeping:

Rags lying loose throughout the compartments of the dock. Rags should be stored in suitable containers.

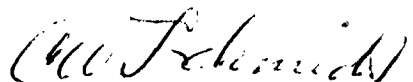
Store reags in suitable containers or enclosed storage area.

PART IV Deficiencies Noted In Previous Reports

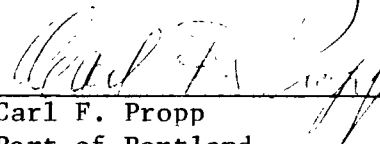
Deficiencies noted in previous reports were corrected except as noted herein.

PART V. CERTIFICATION AND SIGNATURES

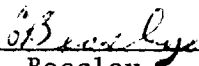
This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP), USN, Seattle and representatives of the Contractor.



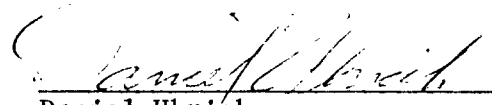
C.W. Schmidt
SUPSHIP Seattle, Senior Member



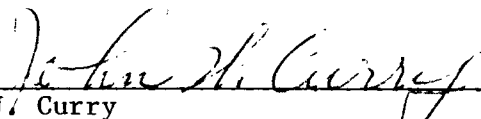
Carl F. Propp
Port of Portland



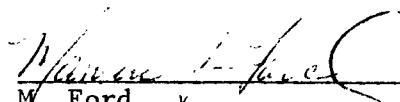
G. Beasley
SUPSHIP Seattle, Hull Member



Daniel Uhrich
Port of Portland



J. Curry
SUPSHIP Seattle, Machinery Member



M. Ford
SUPSHIP Seattle, Electrical Member

Port Fwd Stbd

44'11" 44'10" 44'10"

44'10"

41'6"

ATTACHMENT NO. 1

N
"B" SIDE

"A" SIDE

RIVER FLOW

45'

44'6"

46'7"

45'

45'6"

KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

Basin Soundings YFD-69 6/13/78 1545
River stage 7'6". Readings adjusted to 0' river.

ATTACHMENT #2

Comparative Readings of Contained Water

<u>Compartment No.</u>	<u>Indicator Reading</u>	<u>Actual Level</u>	<u>Difference</u>
1	10'-6"	10'-10"	0'-4"
2	9'-7½"	9'-7½"	0
3	11'-4½"	10'-7½"	0'-9"
4	9'-10½"	9'-10½"	0
5	10'-1½"	10'-3"	0-1½"
6	9'-9"	10'-0"	0'-3"
7	9'-9"	10'-4½"	0-7½"
8	9'-10½"	10'-3"	0-4½"
9	10'-6"	10'-7½"	0-1½"
10	9'-9"	9'-9"	0
11	10'-0"	10'-6"	0'-6"
12	9'-9"	9'-10½"	0'-1½"
13	9'-10½"	10'-0"	0-1½"
14	14'-3"	14'-1½"	0-1½"
15	10'-0"	10'-0"	0
16	10'-3"	10'-7½"	0'-4½"

Jerry Hiersche
dba UNDERWATER SERVICES
Route 2, Box 509, Estacada, Oregon 97023
Portland Phone (503) 630-6703

78 JUN 15 A 8:33

SHIP- Navy drydock, 528' x 118'.

LOCATION- Port of Portland, Swan Island.

DATE & TIME- 6-13-78 8:00 A.M. to 3:00 P.M.

UNDERWATER SERVICE- Complete hull inspection.

PROCEDURE- Standard hogline, 10' stations
104, 5' wide sweeps by diver from side to side.

VISIBILITY- 3' with headlamp.

CREW- 4 men at stations and boat operator supplied by Port.
diver and tender.

ORDERED BY- Rod Ekerson, P.O.P.

BILLED TO- P.O.P., P.O.#12625

REPORT- NO DAMAGE FOUND Inspection includes complete hull and
ends under aprons. Very good paint, minimal algae type
growth. 3 keel block paint patterns 390' from bow and
2 bilge block paint patterns 15' from bow exhibit signs
of light rust. 1 block and 1 log removed from under hull.
OVERALL CONDITION- VERY GOOD.

Reference # 340601

Copies to - Keith Murlock
- file

We also have available for inspection work, an underwater television camera that
produces a very good sound and TV picture as well as produces a tape for
permanent records.

Thank You:


JERRY HIERSCHE
Underwater Services.

ENCLOSURE (2)

PSY500006548

UNDERWATER SERVICES

Route 2, Box 509 - Estacada, Oregon 97023

(503) 630-6703

24-Hour Diving Service

SHIP:

Navy Drydock 528'x118'

LOCATION:

Port of Portland, Swan Island

DATE & TIME:

5-5-82 0930

SERVICE:

Underwater hull inspection

PROCEDURE:

Surface supplied diver with phones working from dive boat. 52 underwater runs from side to side were made at 10' intervals.

VISIBILITY:

5' with headlight.

CREW:

1 diver, 1 tender/standby diver

ORDERED BY:

Ralph Harwood, Port of Portland

BILLED TO:

Port of Portland Invoice #0071 P.O. 620016

REPORT:

No damage found. Inspection was done in an orderly and safe fashion, conditions were excellent with no current and good visibility. Diver, Kevin Hiersche, reports overall condition to be very good and not changed from previous inspection done 11-19-79. All paint is good and no marine growth is visible except for brown algae type that covers the entire under-

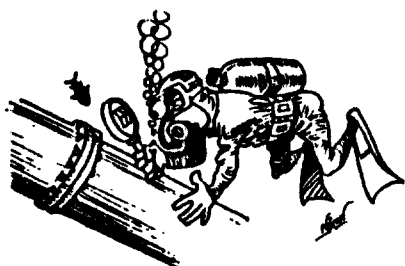
water hull and is about 1/8" thick or less. Members supporting aprons on both ends were checked and are in very good condition.

REF: #SH0971

COPY TO:

Ralph Harwood

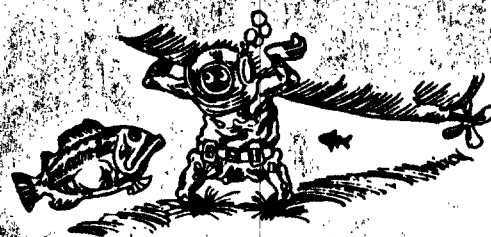
Block patterns in paint are lightly rusted but steel is not exposed. OVERALL CONDITION VERY GOOD.



INSPECTION



CONSTRUCTION



SALVAGE

PSY500006549

November 3, 1975

Capt. V. J. Manara, Jr.
Dept. of the Navy
Supervisor of Shipbuilding,
Conversion & Repair
13th Naval District
Seattle, Washington 98115

ANNUAL INSPECTION OF YFD69

The people at the shipyard tell me that the drydocking and annual inspection of YFD69 is completed with only the deficiencies remaining that can be programmed for correction in the future.

I further understand that the entire job has gone very much according to plan and we commend your personnel -- C. W. Schmidt and J. J. Murgula -- for the professional, diligent and sincere approach they had in making their recommendations and, also, their cooperation with our staff.

We will forward to your department a schedule outlining correction of deficiencies that are noted in the annual report.

Original Signed By
I. James Church

I. James Church, Director
Aviation & Marine Operations

cc: Carl Propp
Dave Neset

AM/IL

CP/78:vs

Jerry Hiersche
dba UNDERWATER SERVICES
Route 2, Box 509, Estacada, Oregon 97023
Portland Phone (503) 630-6703

78 JUN 15 A 8:33

SHIP- Navy drydock, 528' x 118'.

LOCATION- Port of Portland, Swan Island.

DATE & TIME- 6-13-78 8:00 A.M. to 3:00 P.M.

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growth. 3 keel block paint patterns 390' from bow and
2 bilge block paint patterns 15' from bow exhibit signs
of light rust. 1 block and 1 log removed from under hull.
OVERALL CONDITION**VERY GOOD.

Reference # SH0603
Copies to - Keith Murdock
- file

We also have available for inspection work, an underwater television camera that
produces a very good sound and TV picture as well as produces a tape for
permanent records.

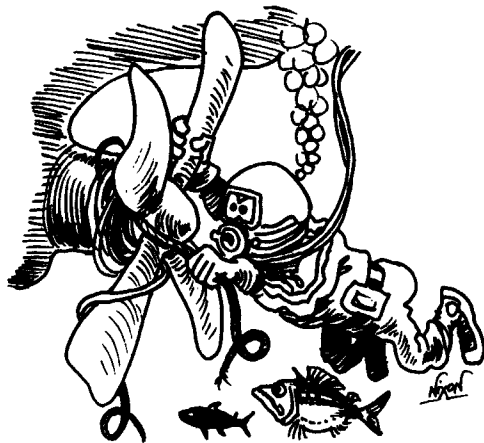
Thank You:


JERRY HIERSCHE
Underwater Services.

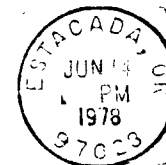
PSY500006551

UNDERWATER SERVICES

RT. 2, BOX 509
ESTACADA, OREGON 97023
503-630-6703



24 HOUR DIVING SERVICE
INSPECTION — CONSTRUCTION — SALVAGE



KEITH MURDOCK

DOCK MASTER
PORT OF PORTLAND
PORTLAND, OREGON
97208

PSY500006552



94

June 18, 1971

Work to be completed for Navy Dock inspection:

Sand sweep and paint top deck of towers with non-skid paint (14,784 sq. ft.).

Sand sweep keel area and apply two coats of paint (3,168 sq. ft.).

Scale bilge block barriers.

Remove and replace deteriorated bilge and keel blocks.

Grease spud guides.

Free top deck air vents.

Grease all bilge block shears.

Sand sweep and paint access gang plank, south side of dry dock.

WRITE NAVY
SCHEDULE

Drydock #3 - Major

Touch up bare spots and paint inside of towers from whaler to top side.

Touch up working deck.

Strip dry dock scale and paint pontoon area where needed.

This work should be done to justify our last underwater survey.

Other - Major

Scale and paint access pier between Drydock #2 and Navy dock.

Scale and paint automotive building, not described.

Minor

All types of minor maintenance work not described.

PSY500006554

June 18, 1971

Mechanical Department Jobs to be Done

Repair machinery houses on all cranes. ✓

Build extension on access gangway to tower of Drydock #3. OK

Install new steam discharge lines on machinery deck of Drydock #3.

Grease below deck of YFD-69.

Rebuild travel truck for 1A crane.

Repair pickup arm carrier bar for cranes on pier C.

Install water line and air lines on Berth 1.

Replace heel pins in booms of all cranes.

Install packing glands on all piping through deck of Drydock #3.

Replace bull gear and pinion gears of all cranes.

Buildings, Cranes, and Yard Work

Install fiberglass panels to improve lighting in Building #4. }

Build and remodel doors of Building #4.

Concrete slab to be poured for gangway of Drydock #3.

Scale and paint crane gantrys. ✓

Boom logs and cables to be repaired along berths.

PSY500006555

June 18, 1971

Electrical Jobs

Clean insulators and rails, paint Substation #1.

Overhaul M.C. sets.

Clean out trolley slots, go over insulators, tighten and replace, clean rails.

Overhaul travel panel.

Overhaul capstan motors on Drydock #2.

Clean trolley rails on Drydock #3.

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:
N00024-70-L0010
Ser 461-1871
24 June 1971

From: Supervisor of Shipbuilding, Conversion, and Repair, USN,
13th Naval District
To: The Port of Portland, Portland, Oregon
Subj: Contract N00024-70-L0010, Port of Portland, Portland, Oregon;
Annual Report of Material Inspection of Floating Drydock YFD-69
Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3 cys)
(2) Diver's Report of underwater body of YFD-69

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Lessee's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.

2. Further, the Lessee is requested to submit a schedule for accomplishment of noted deficiencies within 30 days.

3. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


W. L. SETH
By direction

Copy to: (ea w/encls)
NAVSHIPSYS COM (Code 07513) (2)
COMSERVPAC
CNO (OP-436)
Mr. C. F. Propp - The Port of Portland (4)

PSY500006557

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

N00024-70-10010
(Activity of NOy lease)

REPORT NAVDOCKS 11014-1
for the period ending

MAY 1971
(Month and Year)

ENCLOSURE (1)

PSY500006558

PART I - General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard, steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under Contract N00024-70-L0010. The drydock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The drydock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier.
3. The previous material inspection of the YFD-69 was made during May 1970.
4. The board appointed to inspect the drydock consisted of Mr. W. L. Seth, Senior Member, and D. L. Young, Member, Office of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District, Seattle, Washington; and Mr. C. F. Propp of the Port of Portland. The inspection of the drydock was conducted during the week of 17 May 1971.
5. The following components were placed in preservation without repair at last major overhaul: None.
6. The following equipment is stored ashore:

<u>Equipment</u>	<u>Condition</u>	<u>Location</u>
Spare parts	Good	Concrete warehouse

Enclosure (1)

PSY500006559

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Satisfactory
Mechanical	(Part II 4)	Satisfactory
Electrical	(Part II 5)	Satisfactory
Fittings	(Part II 6)	Satisfactory
Utilities	(Part II 7)	Satisfactory
Miscellaneous	(Part II 8)	Satisfactory
Cleanliness		Satisfactory
Preservation of equipment not in use	(Part I 6)	Satisfactory
Overall Material Condition		Satisfactory

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Exterior</u>			
	<u>Pontoon</u>			
1	Bottom	(See Divers Report, Enclosure (2))	S	S
	Sides		S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	S		S
4	Above Water line	S		S
5	Deck - Pontoon	U		U
	<u>Wingwalls</u>			
6	Outboard face	S		S
7	Inboard face	S		S
8	Ends	S		S
9	Deck	U		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	S		S
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 2"

Bridge Structure

40. Exterior)
) Not applicable
 41. Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
-----------------	-------------	----------------	------------------	-----------------

Crane Runways

42	Trusses)			
)			
43	Rails) Not applicable			
)			
44	Wood Decking)			

Connections between sections

45	Locking Logs)			
)			
46	Joints)			
)			
47	Bridges) Not applicable			
)			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
)					
50	Gasoline Engines)					
	) Not applicable					

4. Condition of Mechanical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Condition Current</u>	<u>Condition Previous</u>
51	Boiler Not applicable				
	<u>Date last inspected:</u>				
	<u>Days idle since last inspection:</u>				
52	Water Distillation Unit				
53	Walk-in				
54	Reach-in				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
61	Salt Water Pumps	Not applicable			
62	Fuel Oil Pumps	Not applicable			
63	Drainage Pumps	Not applicable			
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S

Weight Handling Equipment

Cranes

Type:)
)
 Maker:) Not applicable
)
 Capacity: _____)

66 Structural)
)
 67 Electrical)
)
 68 Mechanical) Not applicable
)
 69 Safety)
)
 70 Derricks)

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	36	S	S
<u>Switchgear</u>					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Condition Current</u>	<u>Condition Previous</u>
<u>Panelboards</u>					
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
<u>Transformers</u>					
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Condition Current</u>	<u>Condition Previous</u>
	<u>Blocking</u>		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
)		
91	Anchors)		
)		
92	Chain)		
)		
93	Hawsers)		
)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	S
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

Item No.	Item	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
102	Ladders	S	S
103	Handrails	S	S
104	Platforms	S	S
105	Gratings	S	S
106	Sidewall Jacking Equipment	Not applicable	
	<u>Pier Moorings</u>		
107	Spuds	U	S
108	Moorings Guides	S	S
109	Alignment between Pier and Sections	S	S
110	Draft Gages		S
111	Davits	Not applicable	
112	Fenders	S	

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
113A	Vacuum Piping	S	S
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System		Not applicable
128	Sprinkler System		Not applicable
129	Compressed Air System		
130	Air Vent System	S	S
<u>Heating and Ventilating System</u>			
131	Piping and Ducts)
132	Ventilation & Exhaust Outlets		) Not applicable
133	Ventilation Fans)
134	Vent Valves		
135	Unit Heaters)
136	Unit Convectors)
137	Heating Coils in Ballast Tanks)
138	Range Hoods and Grease Filters)
<u>Plumbing System</u>			
139	Piping and Fittings	S)

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Water Level and Draft Indicator System</u>		
	Type: Bristol		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer: <u>Unknown</u> (date)		
	Corrections of discrepancies performed by Maintenance personnel at time of inspection.		
151A	Comparative Water Reading System		
	Water Level - Indicator Comparative Readings - See Attachment No. 2		

Miscellaneous Steel Tanks

- 152 Fresh Water Supply)
- 152a Salt Water Tanks)
- 153 Hot Water Storage)
- 154 Cooling Water Expansion)
- 155 Fuel Tanks)
- 156 Lube Oil Tanks)

8. Condition of Miscellaneous Installations

- 157 Bows (Not Navy owned)
- 158 Galley and Mess Equipment, Not applicable
- 159 Clinometers

	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
--	----------------	------------------	-----------------

	S		S
--	---	--	---

	S		S
--	---	--	---

	S		S
--	---	--	---

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 11 May 1971 at 18'7", are as follows: (Refer Attachment #1)

with River Stage

10. Submergence Test. Test was conducted on 17 May 1971. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test: River stage was at 19'-0".

Flood Valves open-	18" Free board	0850
Stop Flooding-	25' - 7" over Keel Blocks	0915
Start Pumps-	25' - 7" over Keel Blocks	0950
Stop Pumps-	18" Free board	1020

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in lieu of careening. (See Diver's Report).

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

NONE

13. Improvements. The following improvements to the dock are recommended: NONE

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	<u>Estimated Cost</u>
5	Pontoon deck is rusting and requires cleaning and painting for preservation. Some pitting was found.	Within the next 12 months, remove wood decking, blocks and debris. Sandblast and preserve with acceptable coating directed by 13ND.	\$85,000.00
	Bilge block slides are rusting and pitting and bilge blocks are difficult to haul on some slides.	Clean and preserve all bilge block slides.	1,500.00
9	Wing wall top deck requires re-painting. Many rusted areas were noted during the inspection.	Re-paint the top deck and coat with good non-skid material for the safety of the line handlers.	800.00
107	Mooring spuds were noted to be dry.	Lubricate all mooring spuds.	100.00

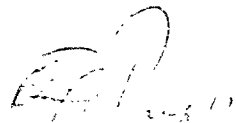
NOTE: Interiors and under side of safety deck in wing tanks of tanks #6, #9, and #11 were examined and found to be in excellent condition. Bitumastic coating was as good as new.

PART IV. Deficiencies Noted in Previous Reports

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
5	No	Yes	

PART V. Certification and Signatures

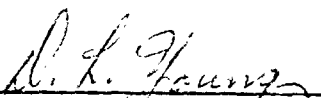
This report is the results of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District and representatives of the Contractor.



C. F. PROPP, Dockmaster
Port of Portland

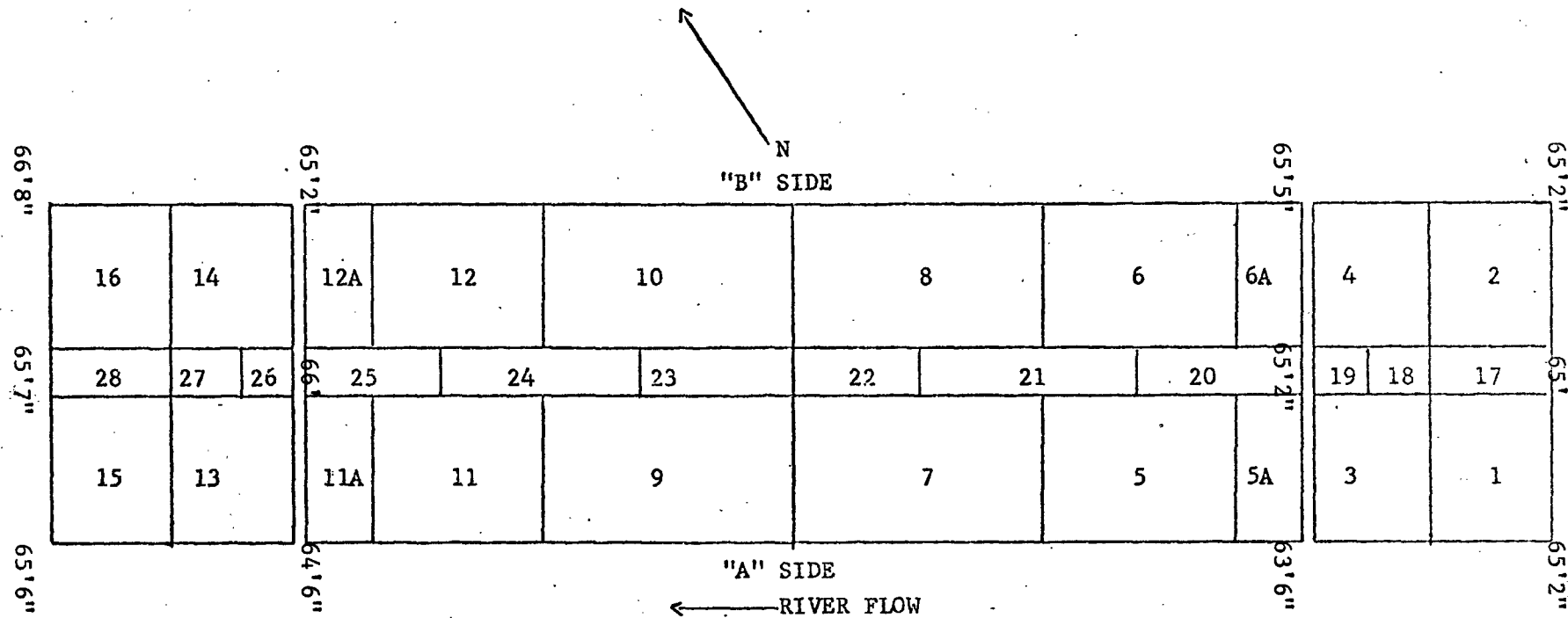


W. L. SETH, SUPSHIP 13 Seattle
Sr. Member of Board



D. L. YOUNG, SUPSHIP 13 Seattle
Member of Board

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

BASIN SOUNDINGS, MAY 11, 1971

Time - 1235

River - 18'7"

A. H. Murdoch - Dock Master

PSY500006583

INDICATOR READINGS AND ACTUAL WATER LEVEL.

NAVY DRYDOCK

Operator Navy Inspection

May, 1971

Operator

DATE

19

VESSEL

TIME

Freeboard 37 1/4"

Freeboard 33 1/2"

INDICATOR READINGS

ACTUAL WATER LEVEL

COMP. 15	COMP. 14	COMP. 12	COMP. 10	COMP. 8	COMP. 6	COMP. 4	COMP. 2
10'1"	9'11"	10'1"	10'1"	10'	10'1"	9'11"	10'
9'11"	9'11 1/4"	10'1"	10'1 1/2"	10'1"	10'1 1/2"	10'1 1/2"	10'1 1/2"
COMP. 15	COMP. 13	COMP. 11	COMP. 9	COMP. 7	COMP. 5	COMP. 3	COMP. 1
10'	10'	10'5"	10'1"	10'	10'	10'	10'5"
10'2"	10'3"	10'4"	10'4 1/2"	9'11 1/2"	10'1 1/2"	10'6"	10'5 1/4"

INDICATOR READINGS

ACTUAL WATER LEVEL

Freeboard 37"

Freeboard 34"

DRAFT FWD.
13'

INDICATOR READINGS

ACTUAL DRAFT

DRAFT AFT.
13'1"

INDICATOR READINGS

ACTUAL DRAFT

FRED DEVINE DIVING & SALVAGE CO., INC.

Operating the M. V. Salvage Chief

RECEIVED
TELEPHONE PORTLAND 255-7082, ASTORIA 325-4372

MAY 10 8 10 34 AM '71
3405 N.E. 82nd AVENUE

THE PORT OF
PORTLAND, OREGON 97220
PORTLAND

DIVER'S REPORT

Surveyed SWAN ISLAND NAVY DRYDOCK
Requested by PORT OF PORTLAND
Nature of Accident _____
Survey Started 0800 MAY 12, 1971 Completed 1630 MAY 12, 1971
Condition of Water LIGHT NEEDED FOR VISIBILITY

REMARKS

I made an underwater examination of the underwater portion of the above named drydock, starting at the bow and moving toward the stern in six foot increments along a rope. The rope was moved after each pass by men on the surface.

Irregularities in the condition of the drydock are as follows:

1. The bow and stern aprons are generally in good condition except for periodic rust spots.
2. Approximately eight feet astern from the bow near the center of the pontoon there is a set-up approximately one and one-half inches deep, two feet wide and three feet long.
3. Approximately three-hundred fifty-five feet astern from the bow near the center of the drydock there is a dent approximately one foot in diameter and one inch deep.
4. Approximately five-hundred feet astern from the bow near the center of the drydock there is a dent approximately one foot in diameter and one inch deep.
5. The area inway of the blocks used during the last drydocking was found to be rusting and some pitting was visible around the circumference of each block.
6. Approximately sixty feet astern of the bow near the center of the drydock there are two three foot circles of rust which appear to have been made by welding on the inside of the drydock. There is also a similar ring of rust twenty feet aft of the bow.

The only detectable difference in the condition of the drydock since my last survey in November of 1967 is the slight pitting around the circumference of the areas where the bilge and keel blocks rested during the last drydocking. The drydocking slots are also rusting.

I hereby certify to the above statements being true to the best of my belief.

Ken Dye

MARINE DIVER

W. K. DYE

KLIP STATIONERS

Enclosure (2)

PSY500006585

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
SEATTLE, WASHINGTON 98115

IN REPLY REFER TO:
YFD-69
Ser 460-1426
21 Apr 1971

From: Supervisor of Shipbuilding, Conversion and Repair, USN
13th Naval District
To: Distribution List

Subj: Floating Drydock YFD-69; convening of Board of Inspection for

Ref: (a) BUSHIPS ltr N16(765) ser 765-13 of 14 Jan 1958 to ASTINDMAN
(b) NAVDOCKS DM-29 Vol 2 Chap. 6 Drydocking Facilities Maintenance and Inspection

1. A Board of Inspection is hereby convened to inspect, examine, and report on the condition of the U. S. Navy Floating Drydock YFD-69. This Drydock is located at the Port of Portland, Portland, Oregon. Mr. W. L. Seth and Mr. D. L. Young are appointed from the Supervisor of Shipbuilding, Conversion and Repair, 13th Naval District. Mr. Seth is appointed as Senior Member.

2. Inspection of the Drydock will commence the week of 17 May 1971. Inspection of the Drydock will be in conformance with the instructions contained in references (a) and (b).

3. The Contractor is hereby requested to assign a representative to act with the Board in this and future inspections.

4. In order to facilitate the inspection, the Contractor is further requested to have the following information available to the Board:

- (a) Soundings of the drydock basin.
- (b) Diver's report of the condition of the underwater body.


W. L. SETH
By direction

Distribution List

SUPSHIP 13

Mr. W. L. Seth (6 cys)

Mr. D. L. Young

The Port of Portland (4 cys)

CNO (OP-436)

NAVSHIPSYSCOM (2 cys)

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

N00024-70-L0010
(Activity of NOy lease)

REPORT NAVDOCKS 11014-1
for the period ending

MAY 1970
(Month and Year)

ENCLOSURE (1)

PART I - General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard, steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The drydock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The drydock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier.
3. The previous material inspection of the YFD-69 was made during October 1969.
4. The board appointed to inspect the drydock consisted of Mr. W. L. Seth, Senior Member, Office of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District, Seattle, Washington; and Mr. C. F. Propp of the Port of Portland. The inspection of the drydock was conducted during the week of 11 May 1970.
5. The following components were placed in preservation without repair at last major overhaul: None
6. The following equipment is stored ashore:

<u>Equipment</u>	<u>Condition</u>	<u>Location</u>
Refer Enclosure (3) (Inventory)	Good	Concrete warehouse

7. There is no towing equipment for this drydock. Original towing equipment was borrowed from AFDM-6.

Enclosure (1)

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Satisfactory
Mechanical	(Part II 4)	Satisfactory
Electrical	(Part II 5)	Satisfactory
Fittings	(Part II 6)	Satisfactory
Utilities	(Part II 7)	Satisfactory
Miscellaneous	(Part II 8)	Satisfactory
Cleanliness		Satisfactory
Preservation of equipment not in use	(Part 1 6)	Satisfactory
Overall Material Condition		Satisfactory

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Exterior</u>			
	<u>Pontoon</u>			
1	Bottom	(See Divers Report, Enclosure (2))	S	S
	Sides		S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	S		S
4	Above Water line	S		S
5	Deck	U		U
	<u>Wingwalls</u>			
6	Outboard face	S		S
7	Inboard face	S		S
8	Ends	S		S
9	Deck - Pontoon	S		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		C
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u> <u>Previous</u>
30	Compartment No. 17	S	S
31	Compartment No. 18	S	S
32	Compartment No. 19	S	S
33	Compartment No. 20	S	S
34	Compartment No. 21	S	S
35	Compartment No. 22	S	S
36	Compartment No. 23	S	S
37	Compartment No. 24	S	S
38	Compartment No. 25	S	S
39	Compartment No. 26, 27 & 28	S	S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 2"

Bridge Structure

40. Exterior)
) Not applicable
 41. Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Crane Runways</u>				
42	Trusses)			
43	Rails)			
	) Not applicable			
44	Wood Decking)			
<u>Connections between sections</u>				
45	Locking Logs)			
46	Joints)			
47	Bridges)			
	) Not applicable			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
	) Not applicable					
50	Gasoline Engines)					

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
51	<u>Boiler</u> Not applicable				
	Date last inspected: _____)				
	_____)				
	Days idle since last inspection: _____)				
	_____)				
52	Water Distillation Unit)				
53	Walk-in)				
54	Reach-in)				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
61	Salt Water Pumps	Not applicable			
62	Fuel Oil Pumps	Not applicable			
63	Drainage Pumps	Not applicable			
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
<u>Weight Handling Equipment</u>					
<u>Cranes</u>					
	Type:)			
)			
	Maker:	)	Not applicable		
)			
	Capacity: _____)			
66	Structural)			
)			
67	Electrical)			
)			
68	Mechanical	)	Not applicable		
)			
69	Safety)			
)			
70	Derricks)			

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	36	S	S
<u>Switchgear</u>					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
<u>Panelboards</u>					
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
<u>Transformers</u>					
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
	<u>Blocking</u>		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
91	Anchors)		
92	Chain)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	S
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
102	Ladders	S		S
103	Handrails	S		S
104	Platforms	S		S
105	Gratings	S		S
106	Sidewall Jacking Equipment	Not applicable		
	<u>Pier Moorings</u>			
107	Spuds	S		S
108	Mooring Guides	S		S
109	Alignment between Pier and Sections	S		S
110	Draft Gages	S		S
111	Davits	Not applicable		
112	Fenders	S		S

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
113A	Vacuum Piping	S	S
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	S	S
130	Air Vent System	S	S
	<u>Heating and Ventilating System</u>		
131	Piping and Ducts)		
132	Ventilation & Exhaust Outlets) Not applicable		
133	Ventilation Fans)		
134	Vent Valves	S	S
135	Unit Heaters)		
136	Unit Convectors)		
137	Heating Coils in Ballast Tanks)		
138	Range Hoods and Grease Filters)		
	<u>Plumbing System</u>)		
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Water Level and Draft Indicator System</u>		
	Type: Bristol		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer: <u>Unknown</u> (date)		
	Corrections of discrepancies performed by Maintenance personnel at time of inspection.		
151A	Comparative Water Reading System		
	Water Level - Indicator Comparative Readings - See Attachment No. 1		

Miscellaneous Steel Tanks

152 Fresh Water Supply)
)
 152a Salt Water Tanks)
)
 153 Hot Water Storage)
)
 154 Cooling Water Expansion)
)
 155 Fuel Tanks)
)
 156 Lube Oil Tanks)

Condition
Current Previous

S S

8. Condition of Miscellaneous Installations

157 Brows (Not Navy owned)
 158 Galley and Mess Equipment Not applicable
 159 Clinometers

S S

S S

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 12 May 1970 with River Stage at 5'5", are as follows: (Refer Attachment #1)

Port Side	Forward	52'
Starboard Side	Forward	52'2"
Port Side	Amidships	52'3"
Starboard Side	Amidships	50'6"
Port Side	Aft	53'9"

9. Dry Dock Basin (Cont'd)

Starboard Side

Aft

52'6"

10. Submergence Test. Test was conducted on 14 May 1970. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 60 minutes. The following is a Log of the submergence test:

Flood Valves open-	18" Free board	1100
Stop Flooding-	25' - 7" over Keel Blocks	1135
Start Pumps-	25' - 7" over Keel Blocks	1230
Stop Pumps-	18" Free board	1305

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in lieu of careening. (See Diver's Report).

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

NONE

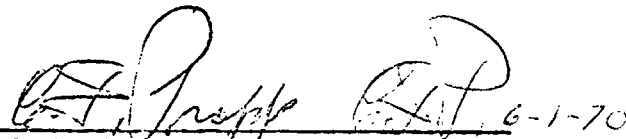
13. Improvements. The following improvements to the dock are recommended: NONE

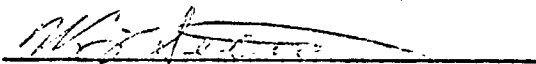
PART III. Description of Deficiencies and Recommended Action

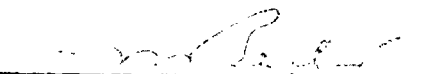
<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	<u>Estimated Cost</u>
5	Pontoon deck is rusting and requires cleaning and painting for preservation. Some pitting was found.	Within the next 12 months remove wood decking, blocks and debris, sandblast and preserve with 1 coat of inorganic zinc, 1 tie coat and 1 color coat.	\$85,000


PART V. Certification and Signatures

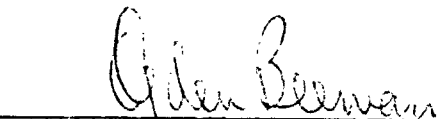
This report is the results of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District and representatives of the Contractor.

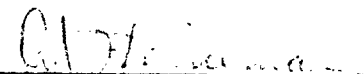

C. F. PROPP, Dockmaster
Port of Portland


W. L. Seth, SUPSHIP 13 Seattle
Sr. Member of Board


E. W. Bauer
Asst. Secretary-Treasurer
Port of Portland

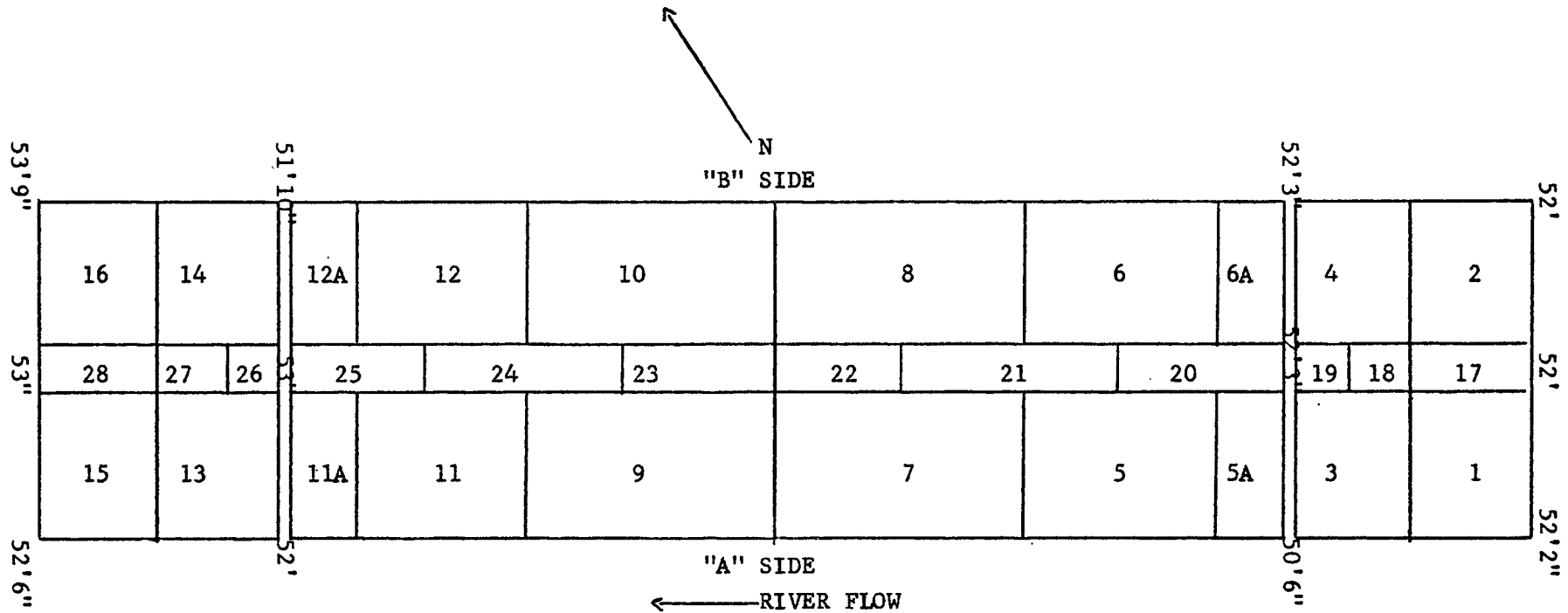

D. L. Young, SUPSHIP 13 Seattle
Member of Board


O. Beeman
Marine Manager


A. Heineman
Asst. General Manager

May 12, 1970
 Time: 1300
 Riverstage: 5'5"
 Basis soundings
AKM Dock Foreman

ATTACHMENT NO. 1

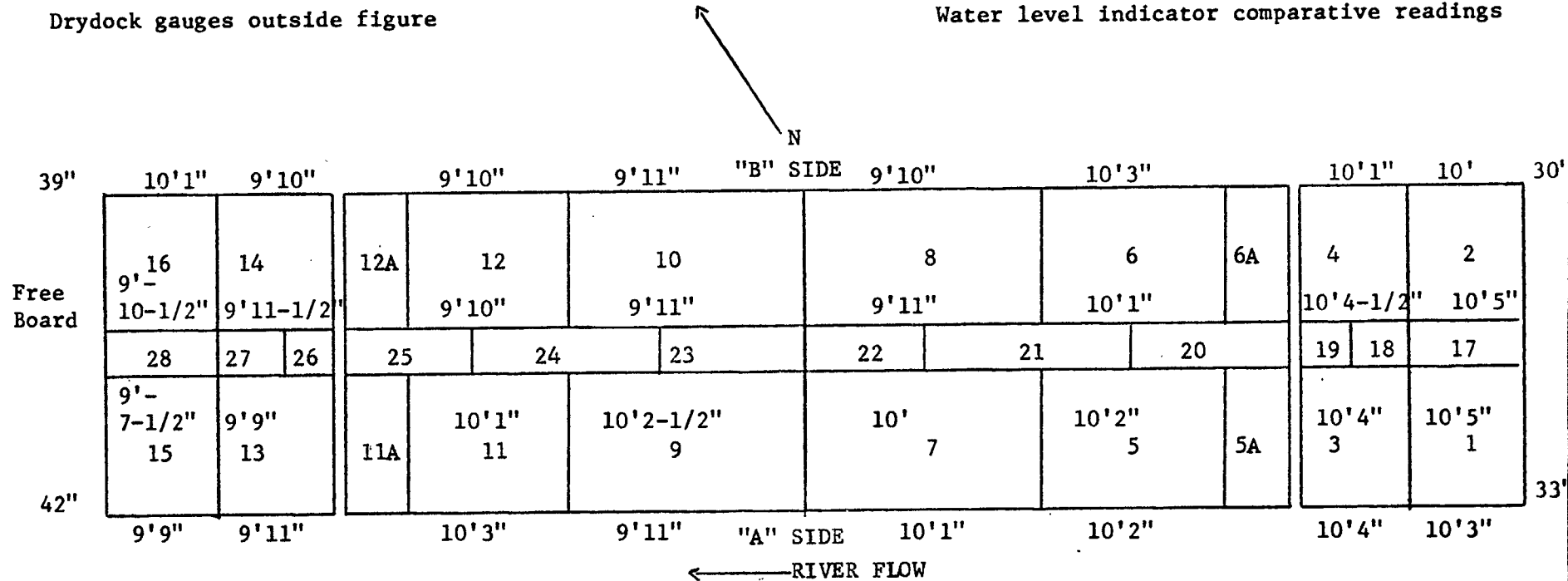


KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

ATTACHMENT NO.2

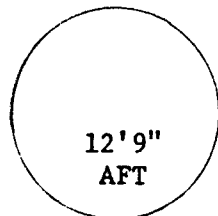
Drydock gauges outside figure

Water level indicator comparative readings

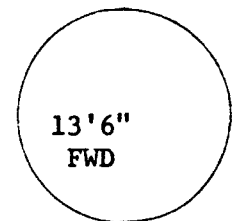


KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

May 15, 1970 - Time 0900
 Sounding Navy Drydock YFD-69
 Flooding comp and dock free board.
 Dock Foreman: A. K. Murdock



Drydock indicators



FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97206

RECEIVED

MAY 19 8 31 PM '70

ASTORIA
325-4372

THE PORT OF
PORTLAND

DIVER'S REPORT

Surveyed NAVY DRYDOCK
Requested by THE PORT OF PORTLAND V-9916
Nature of Accident ANNUAL INSPECTION
Survey Started 0800 HRS, 13 MAY 1970 Completed 1430 HRS, 14 MAY 1970
Condition of Water MURKY - GOOD VISIBILITY FOR THREE FEET

REMARKS

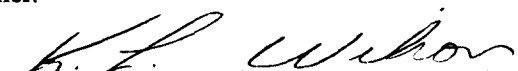
I made an examination of the underwater portion of the above named drydock, starting at the bow and moving toward the stern in 5 foot increments along a rope. The rope was moved after each pass by men on the surface.

Irregularities in the condition of the vessel are as follows:

1. On the bow and stern aprons there are spots of rust along the various welds. There appeared to be more spots of rust on the bow apron than on the stern apron. The webbing appeared to be in good condition.
2. *Approximately 8 feet astern from the bow, near the center of the drydock, is a dent approximately 3 feet in diameter, 1-1½ inches deep.
3. Approximately 25 feet astern from the bow, 100 feet in from the starboard side, there are 12 small pit holes in an area of approximately 12 inch diameter.
4. Approximately 60 feet astern from the bow, 10 feet in from the starboard side, the paint is deteriorating in a line around the perimeter of a 2 foot long scrap piece of 2 x 4 lumber, which had floated up against the bottom of the drydock.
5. Approximately 165 feet astern from the bow, 50 feet in from the starboard side, there are two pits approximately 1/8 inch deep, 1½ inch diameter.
6. Approximately 200 feet astern from the bow, 18 inches in from the port side, there is a crescent shaped scratch, through the paint and into the metal. The subtended length of the scratch is approximately 6 inches, with a radius of approximately 2½ inches.
7. Approximately 210 feet astern from the bow, 48 feet in from the starboard side, is a scratch 1/2 inch long, 1/8 inch wide. The scar appears similar to those caused by electrolysis.
8. Approximately 225 feet astern from the bow, 65 feet in from the starboard side, is a dent approximately 14 inches in diameter and setup approximately 1½ inches.
9. Approximately 255 feet astern from the bow, 6 to 12 inches in from the turn of the starboard keel, there are 9 small pits in an area of approximately 12 inch diameter. Also in this area, a 5foot strip along the edge of the turn of the keel is rusty.

Continued on page 2.

I hereby certify to the above statements being true to the best of my belief.



MARINE DIVER

FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97220

ASTORIA
325-4372

DIVER'S REPORT

Surveyed NAVY DRYDOCK
Requested by THE PORT OF PORTLAND V-9916
Nature of Accident ANNUAL INSPECTION
Survey Started 0800 HRS, 13 MAY 1970 Completed 1430 HRS, 14 MAY 1970
Condition of Water MURKY - GOOD VISIBILITY FOR THREE FEET


REMARKS

PAGE 2.

10. Approximately 280 feet astern from the bow, 38 feet in from the port side, is a small pit, 1/4 inch diameter.
11. Approximately 300 feet astern from the bow, 78 feet in from the starboard side, is another small pit, 1/4 inch diameter.
12. Approximately 330 feet astern from the bow, 14 feet in from the port side, 20 inches along a weld is rusty.
13. Approximately 330 feet astern from the bow, 6 inches in from the port side, are 7 small rust spots.
14. Approximately 350 feet astern from the bow, 33 feet in from the port side, there is an area approximately 6 feet by 10 feet set up approximately 1/2 to 3/4 inches.
15. *Approximately 355 feet astern from the bow, near the port edge of the drydock bottom is a dent approximately 1 foot in diameter and 1 inch deep.
16. *Approximately 355 feet astern from the bow, near the center of the drydock, is a dent approximately 1 foot in diameter and 1 inch deep.
17. Approximately 390 feet astern from the bow, 68 feet in from the port side, there is an area of rust where a keel block had set. Also in this area is rust along 10 to 12 feet of weld.
18. Approximately 470 feet astern from the bow, 60 feet in from the starboard side, there are 4 rust pits, one of which is approximately 5/8 inch diameter; the other 3 smaller.
19. *Approximately 500 feet astern from the bow, near the center of the drydock, is a dent approximately 1 foot in diameter and 1 inch deep.
20. The area in way of the blocks used during the last drydocking was found to be rusted, but no pitting of the base metal is apparent.
21. General statement of findings: I found the general condition of the vessel's bottom plating to be substantially the same as it was during my last survey, October 23, 1969. I closely examined several of the rust spots and pitted areas reported in this and my prior survey and found the condition of the metal to be the same.

Continued on page 3.

I hereby certify to the above statements being true to the best of my belief.



MARINE DIVER

FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97220

ASTORIA
325-4372

DIVER'S REPORT

Surveyed NAVY DRYDOCK
Requested by THE PORT OF PORTLAND V-9916
Nature of Accident ANNUAL INSPECTION
Survey Started 0800 HRS, 13 MAY 1970 Completed 1430 HRS, 14 MAY 1970
Condition of Water MURKY - GOOD VISIBILITY FOR THREE FEET

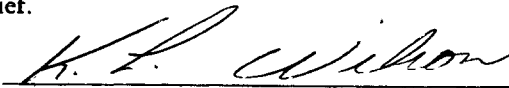
REMARKS

PAGE 3.

22. Upon completion of my regular condition examination, the drydock was lowered to a draft of 47 feet. The river gauge at this time was 5.5 feet. A line was passed under the drydock from side to side and I moved it the full length of the vessel by first moving the line on one side, crossing under the vessel and then moving the line on the other side. This was done to determine if there were any obstructions or snags under the drydock that the vessel could come in contact with in regular use. I found the area to be clear. The minimum clearance between the bottom of the drydock and the bottom of the river was approximately 3 feet at the time this portion of the survey was made.

* These indents appear to be old, as the paint has not been damaged.

I hereby certify to the above statements being true to the best of my belief.

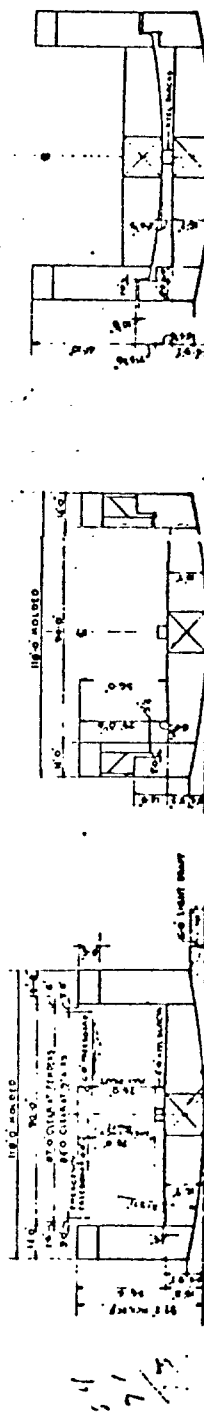
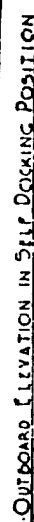
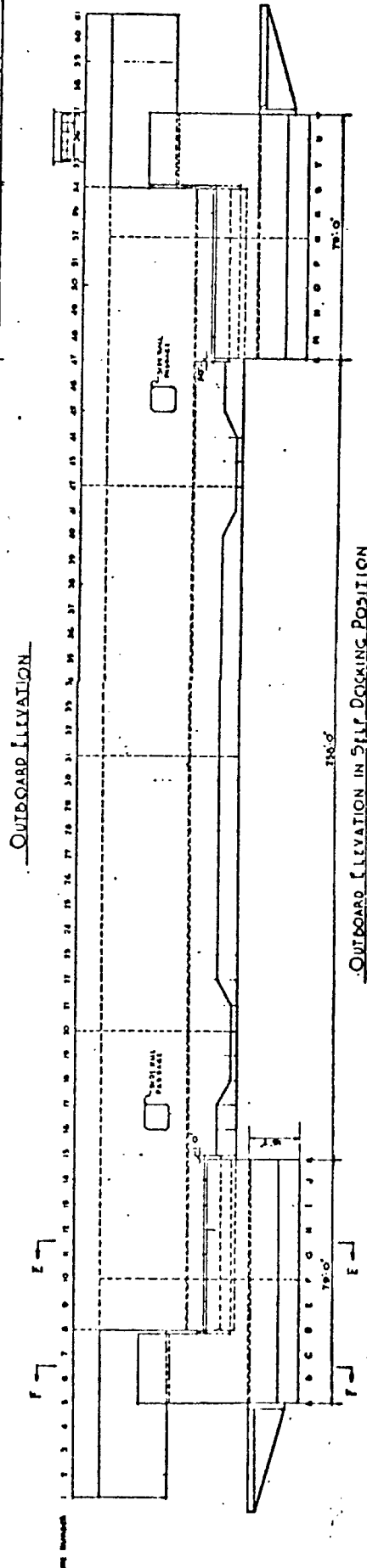
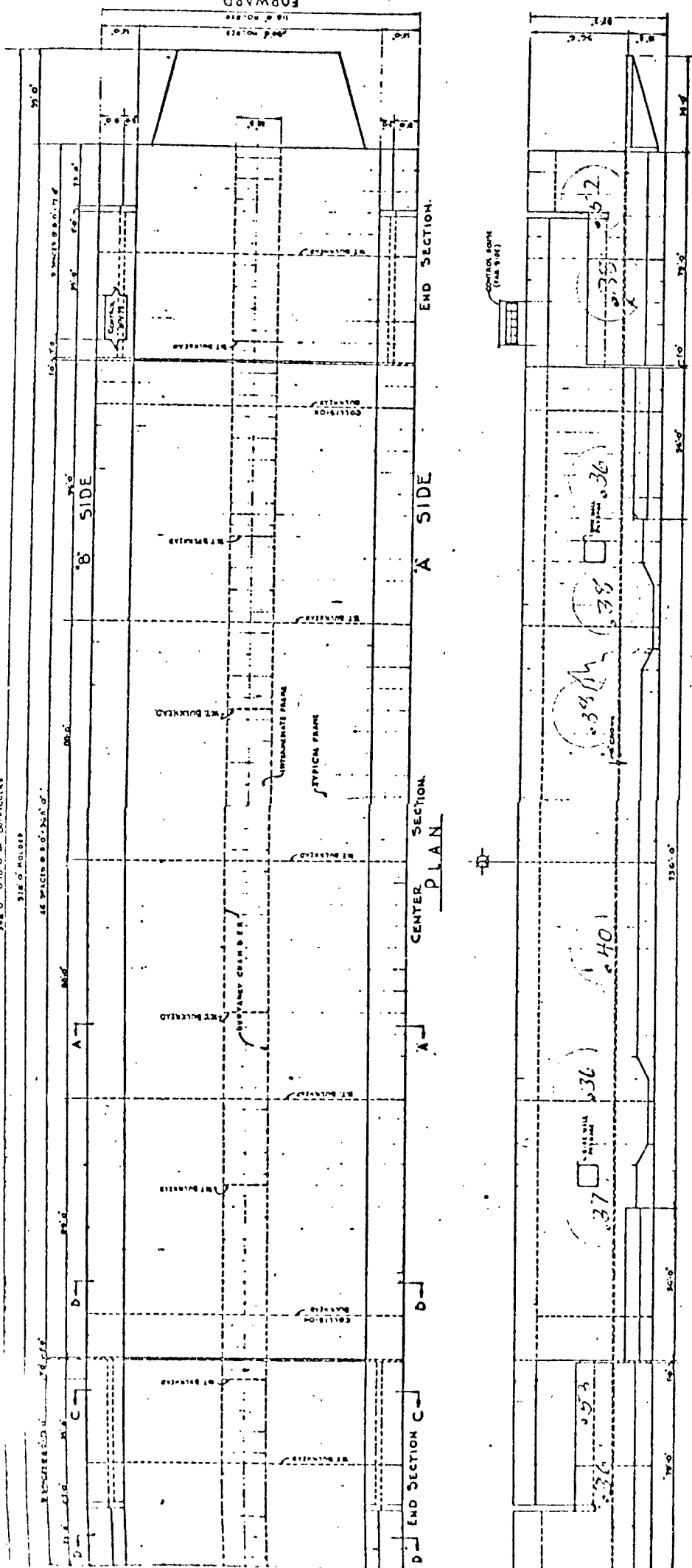

K. L. WILSON MARINE DIVER

PSY500006616

[illegible]

ALL DIMENSIONS ARE MOLDED UNLESS NOTED OTHERWISE.
MEDIA BLOCKS TO PROVIDE CLEARANCE FOR PROFILES.

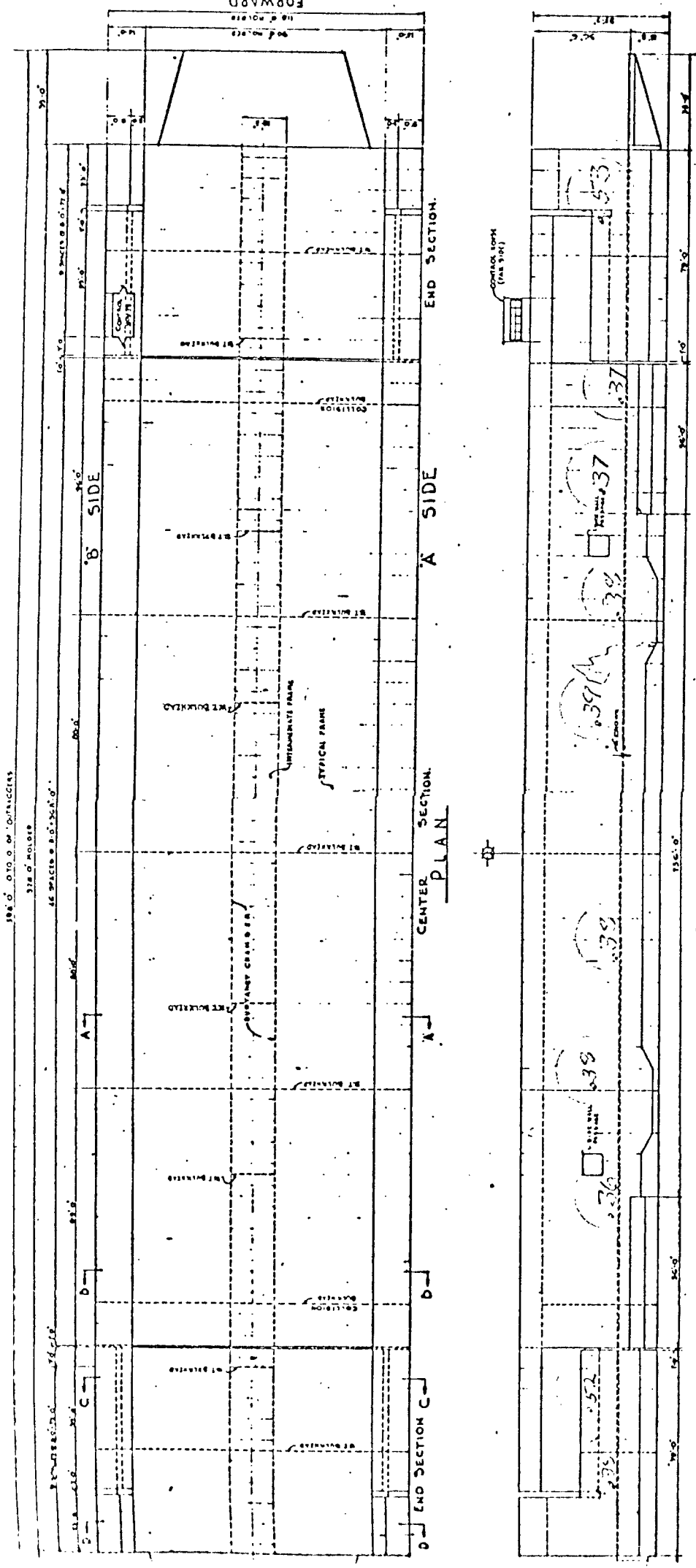
Inbörli s de

Dact : tower

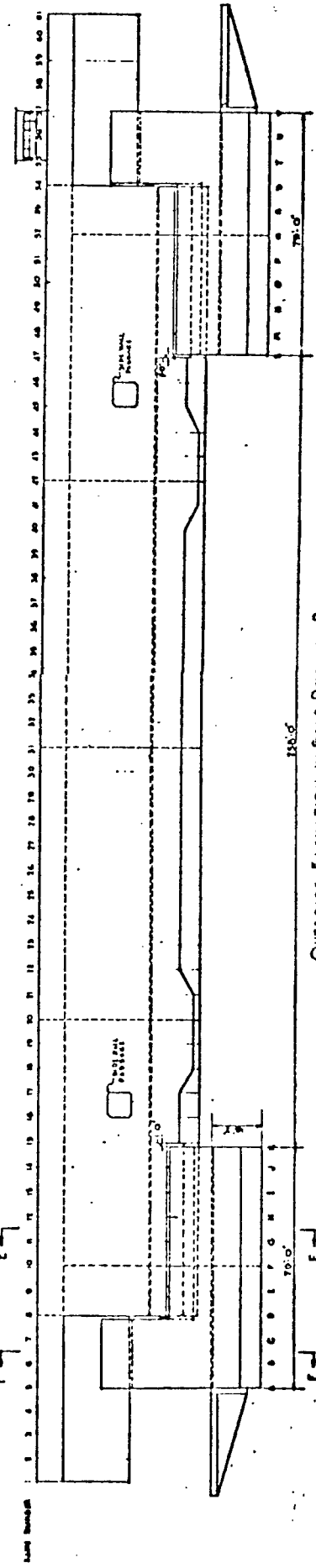
NO.	DESCRIPTION
16.9176	GENERAL PLAN
16.9177	PLAN - 3/8" SCALE
16.9178	PLAN - 3/8" SCALE
16.9179	PLAN - 3/8" SCALE
16.9180	OUTBOARD ELEVATION - 3/8" SCALE
16.9181	OUTBOARD ELEVATION - 3/8" SCALE
16.9182	OUTBOARD ELEVATION - 3/8" SCALE
16.9183	OUTBOARD ELEVATION - 3/8" SCALE
16.9184	OUTBOARD ELEVATION - 3/8" SCALE
16.9185	OUTBOARD ELEVATION - 3/8" SCALE
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16.9210	OUTBOARD ELEVATION - 3/8" SCALE
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16.9218	OUTBOARD ELEVATION - 3/8" SCALE
16.9219	OUTBOARD ELEVATION - 3/8" SCALE
16.9220	OUTBOARD ELEVATION - 3/8" SCALE

NOTES
ALL DIMENSIONS ARE IN FEET AND INCHES
UNLESS NOTED OTHERWISE

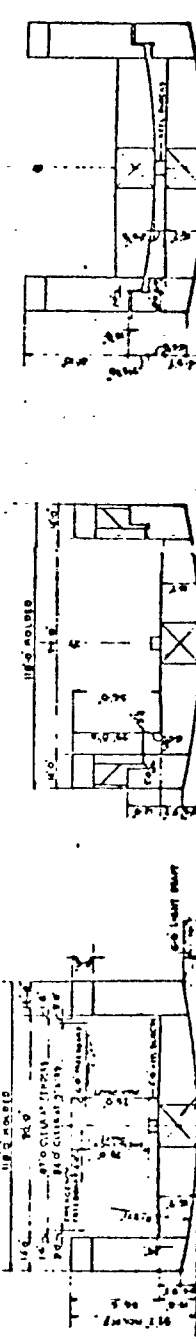
Inboard side
Starboard Tower



OUTBOARD ELEVATION



OUTBOARD ELEVATION IN STAR DOCKING POSITION



300' 0" 010 0 00' OUTRIGGERS
370' 0" MOLES

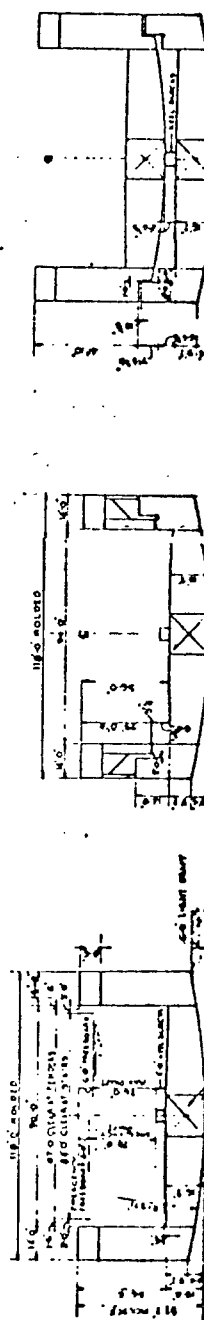
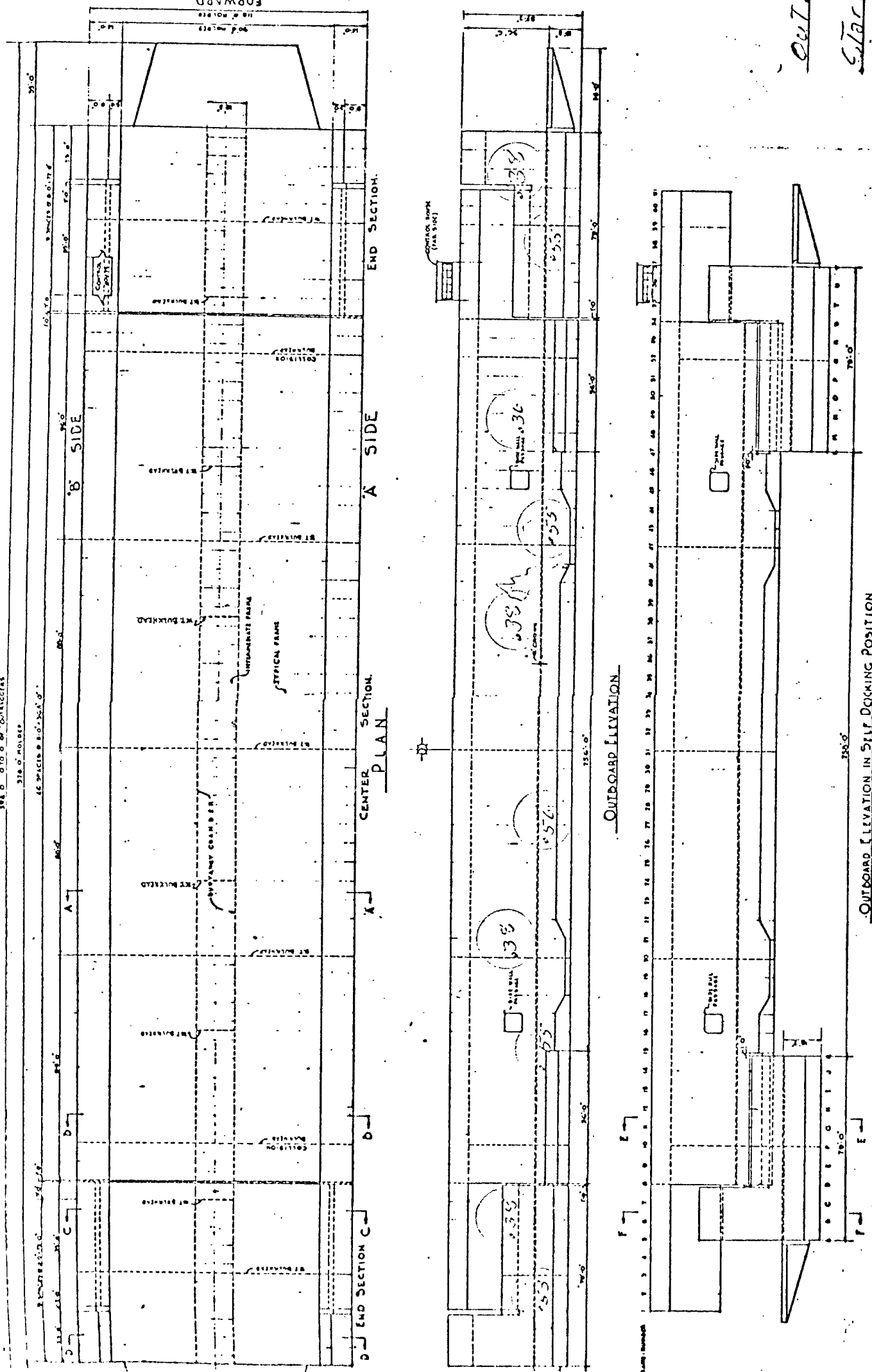
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NOTES

ALL DIMENSIONS ARE MOULDERS GOMT 20 MG WIL. 8 (3).
MIGRA BLOCKS TO PROVIDE CLEARANCE FOR PROPERTIES

Outboard s. de

Starboard Tower



ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK NO. ~~8~~

YFD 69

Nov. 13
~~1968~~ 1969

THE PORT OF PORTLAND
SWAN ISLAND SHIP REPAIR YARD
PORTLAND, OREGON

PART I - GENERAL

1. The dock was constructed by Gunderson Bros. Engineering Corp. in 1962 at Portland, Oregon. It was delivered December 28, 1962, and put in service January 21, 1963, picking the tanker PUEBLO.
2. The dock is moored to the southerly side of Pier C by three guides mounted on columns on the pier and running on three spuds on the port wingwall.
3. The pontoons can be cut loose individually and be docked on the remainder of the dock, but such self-docking is not expected to be necessary until 1975 or later.
4. The last previous annual inspection of D. D. No. 3 was made in June, 1968.
5. This inspection was conducted during the period June _____ to June Nov 1969.

The following persons acted as inspectors:

<u>Name</u>	<u>Position</u>	<u>Item</u>
_____	_____	Hull
_____	_____	Mechanical
_____	_____	Electrical
_____	_____	Engineering
_____	_____	Housekeeping

PART II - CONDITION

1. Condition marks:

S indicates satisfactory condition, operation, appearance and/or functioning.
U indicates need of repair, alterations, adjustment, cleaning, lubrication, painting, replacement and/or calibration. Each U mark should indicate the fault and a suggested remedy; such as "dirty-clean," or "noisy-oil and adjust."

2. Condition of Hull

							<u>Item No.</u>
Pontoons:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
Bottom exterior	<u>S</u>	—	—	—	—	—	1
Fwd. blkhd. ext.	<u>S</u>	—	—	—	—	—	2
Aft " "	<u>S</u>	—	—	—	—	—	3
Port underwater ext.	<u>S</u>	—	—	—	—	—	4
Stbd. " "	<u>S</u>	—	—	—	—	—	5
Deck exterior	<u>S</u>	—	—	—	—	—	6
Blocks	<u>S</u>	—	—	—	—	—	7
Buoyancy chamber	<u>S</u>	—	—	—	—	—	8

2. Condition of Hull (continued)

Item No.

Pontoons:

Port WW ext. Inbd.

" " " Outbd.

" " top deck

" " safety deck

" ballast compartment

Stbd. WW ext. inbd.

" " " outbd.

" " top deck

" " safety deck

" ballast compartment

Permanent ballast water:

long tons

condition

Outriggers:

Structural ✓ OK

Planking

Fenders

Floating camel ✓

3. Mechanical Condition:

Blocking

Cleats ✓ OK

~~Crane rails~~

Draft boards

Gangplanks ✓ OK

Gratings ✓

Hatches & doors ✓ OK

Hoses

Ladders & stairs ✓ OK

Locks

Moorings ✓ OK

~~Platforms~~

Platforms

Railings ✓ OK

Rope blocks ✓ OK

~~Rope rollers~~

Rope, synthetic

Rope, wire

Air compressor ✓ OK

~~Fire extinguishers~~~~Fire extinguishers~~~~Hoisting system~~

Steam system ✓

~~Ventilating system~~

Water system, city ✓ OK

Water system, river ✓

Capstans ✓

~~Crane~~~~Downhauling flap valves~~

" pumps ✓

1	2	3	4	5	6
<u>S</u>					
<u>S</u>					
<u>S</u>					
<u>S</u>					
<u>S</u>					
<u>S</u>					
<u>S</u>					
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<u>S</u>					
<u>S</u>					

9
10
11
12
13
14
15
16
17
18
19
20

Fwd

Aft

US

Ext.

Int.

SS

21
22
23
24

Port

Stbd.

SSUUUUUUUU

No hoses

SS

31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Above readings are corrected from _____ to zero river stage.

Comparison of rod and gage readings of contained water at one foot freeboard:

Pontoons:	1	2	3	4	5	6	
Port rod	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	121
" gage	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	122
Stbd rod	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	123
" gage	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	124

Average silt depth in ballast
Compartments, inches:
(odd in odd years, even in
even years)

Port	<u>1 1/2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	125
Stbd.	<u>1 1/2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	126

	<u>Port</u>	<u>Stbd.</u>	
Chine paint when careened 12 feet, or 3.5°:	<u> </u>	<u> </u>	127

PART III - OPERATING TESTS

1. Flood at maximum from 18' draft

Readings at Max.	1	2	3	4	5	6	
Gages	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	131
Draft boards	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	132
Time in minutes to 25' average			<u>5</u>				133
" " " " 32' "			<u>5</u>				134
" " " " 37' "			<u> </u>				135
" " " " max.			<u> </u>				136

2. Pump at maximum to minimum draft:

Time in minutes to 37' average draft							137
" " " " 29' " "			<u>5</u>				138
" " " " 21' " "			<u>5</u>				139
" " " " 13' " "			<u>5</u>				140
" " " " minimum draft			<u> </u>				141

Gage readings at light draft:

	1	2	3	4	5	6	
Draft	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	142
Port ballast	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	143
Stbd. "	<u>5</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	144

PART IV - List of Spare Parts Stored on Dock (attach list). 151

PART V - Summary of Unsatisfactory Conditions and Suggestions, Attached.

PART VI - Suggestions for Improvements, Attached.

Note: Estimate cost of each item listed in PARTS V and VI.

			<u>Item No.</u>
3. Mechanical Condition (continued)	<u>Port</u>	<u>Stbd.</u>	
Fire extinguishers	_____	_____	61
Fire hoses	_____	_____	62
Fire monitors ✓ <i>OK</i>	_____	_____	63
Flooding valves ✓	_____	_____	64
High pressure tanks	_____	_____	65
Life rings	<u>5</u>	<u>5</u>	66
4. Electrical Condition:			
Alarms	_____	_____	71
Communications	_____	_____	72
D.C. control	_____	_____	73
Main feeder cables	_____	_____	74
" switchboard	_____	_____	75
Power cable in trays: cable	_____	_____	76
trays	_____	_____	77
Motor control centers	_____	_____	78
Transformers	_____	_____	79
Motors: Air compressors	_____	_____	80
Capstans	_____	_____	81
Pumps	_____	_____	82
Crane	_____	_____	83
Lighting: Clusters & stanchions	_____	_____	84
Machinery deck	_____	_____	85
Mercury vapor	_____	_____	86
Outlets: Extensions to pontoon deck	_____	_____	87
Repair	_____	_____	88
Ship service	_____	_____	89
Unit heaters ✓	_____	_____	90
Ventilating fans	_____	_____	91
5. Engineering Condition:			
Deflection measuring system			101
Apron plank deflection	<u>Fwd.</u>	<u>Aft.</u>	
Max., inches	_____	_____	102
6. Housekeeping Condition:			
Cleanliness & orderliness: ✓ <i>OK</i>	<i>OK</i>	<i>OK</i>	
Pontoon deck	_____	_____	111
Top deck	<u>Port</u>	<u>Stbd.</u>	112
Machinery deck ✓ <i>OK</i>	<u>OK</u>	<u>OK</u>	113
Basin Soundings: Bow	_____	_____	114
1-2	_____	_____	115
2-3	_____	_____	116
3-4	_____	_____	117
4-5	_____	_____	118
5-6	_____	_____	119
Stern	_____	_____	120

SUBMITTED BY:

Dockmaster

APPROVED BY:

Marine Manager

Chief Engineer

General Manager

NOTE: Approval of the report does not imply concurrence in suggested repairs and improvements, which will be processed individually.

PRELIMINARY DRAFT: cc to A. J. Heineman
Ogden Beeman
H. L. Feiock
Carl F. Propp
Loren Long
for comment

AB/ms
6/13/63

Last page revised
7/2/68

PSY500006626

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 461-5548
12 Nov 1969

RECEIVED
NOV 18 1969

THE PORT OF PORTLAND

From: Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District

To: The Port of Portland, Portland, Oregon

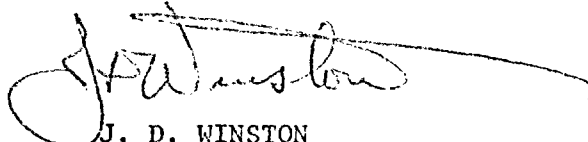
Subj: Contract NObs-4315, Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69

Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3 cys)
(2) Diver's Report of underwater body of YFD-69 (3 cys)

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Lessee's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.

2. Further, the Lessee is requested to submit a schedule for accomplishment of noted deficiencies within 30 days.

3. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


J. D. WINSTON
By direction

Copy to: (ea w/encls)
NAVSHIPSYSCOM (Code 07513) (2)
COMSERVPAC
CNO (OP-436)
Mr. C. F. Propp - The Port of Portland (4)
Code 460 (4)

PSY500006627

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOY Lease)

REPORT BUDOCKS 11014-1

for the period ending

October 1969
(Month and Year)

ENCLOSURE (1)

PSY500006628

PART I - General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard, steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The drydock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The drydock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The drydock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The drydock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the drydock and three guides mounted on the pier.
3. The previous material inspection of the YFD-69 was made during February 1969.
4. The board appointed to inspect the drydock consisted of Mr. W. L. Seth, Senior Member, Office of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District, Seattle, Washington; and Mr. C. F. Propp of the Port of Portland. The inspection of the drydock was conducted during the week of 27 October 1969.
5. The following components were placed in preservation without repair at last major overhaul: None
6. The following equipment is stored ashore:

Equipment

Condition

Location

None

7. There is no towing equipment for this drydock. Original towing equipment was borrowed from AFDM-6.

Enclosure (1)

PSY500006629

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Unsatisfactory
Mechanical	(Part II 4)	Satisfactory
Electrical	(Part II 5)	Satisfactory
Fittings	(Part II 6)	Satisfactory
Utilities	(Part II 7)	Satisfactory
Miscellaneous	(Part II 8)	Satisfactory
Cleanliness		Satisfactory
Preservation of equipment not in use	(Part 1 6)	Satisfactory
Overall Material Condition		Satisfactory

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Exterior</u>			
	<u>Pontoon</u>			
1	Bottom	(See Divers Report, Enclosure (2))	S	S
	Sides		S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	S		S
4	Above Water line	S		S
5	Deck	U		S
	<u>Wingwalls</u>			
6	Outboard face	S		S
7	Inboard face	S		S
8	Ends	S		S
9	Deck - Pontoon	S		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	S		S
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 6"

Bridge Structure

40. Exterior)
) Not applicable
 41. Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Crane Runways</u>				
42	Trusses)			
)			
43	Rails)		Not applicable	
)			
44	Wood Decking)			
<u>Connections between sections</u>				
45	Locking Logs)			
)			
46	Joints)		Not applicable	
)			
47	Bridges)			
)			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Itemk</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
	)				Not applicable	
50	Gasoline Engines)					

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
51	<u>Boiler</u> Not applicable				
	Date last inspected: _____				
	Days idle since last inspection: _____				
52	Water Distillation Unit				
53	Walk-in				
54	Reach-in				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
61	Salt Water Pumps Not applicable				
62	Fuel Oil Pumps Not applicable				
63	Drainage Pumps Not applicable				
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
<u>Weight Handling Equipment</u>					
<u>Cranes</u>					
	Type:)				
	Maker:)				
	Capacity: _____)				
66	Structural)				
67	Electrical)				
68	Mechanical)				
69	Safety)				
70	Derricks)				

Not applicable

Not applicable

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	36	S	S
<u>Switchgear</u>					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
	<u>Panelboards</u>				
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
	<u>Transformers</u>				
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u> <u>Current</u>	<u>Condition</u> <u>Previous</u>
	<u>Blocking</u>		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
)		
91	Anchors)		
)		
92	Chain)		
)		
93	Hawsers)		
)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	S
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
102	Ladders	S		S
103	Handrails	S		U
104	Platforms	S		S
105	Gratings	S		S
106	Sidewall Jacking Equipment			
	Not applicable			
	<u>Pier Moorings</u>			
107	Spuds	S		S
108	Mooring Guides	S		S
109	Alignment between Pier and Sections	S		S
110	Draft Gages	S		U
111	Davits			
	Not applicable			
112	Fenders	S		U

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
113A	Vacuum Piping	S	U
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	U
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	U
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

Item No.	Item	Condition	
		Current	Previous
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	S	U
130	Air Vent System	S	U
<u>Heating and Ventilating System</u>			
131	Piping and Ducts)		
132	Ventilation & Exhaust Outlets) Not applicable		
133	Ventilation Fans)		
134	Vent Valves	S	S
135	Unit Heaters)		
)		
136	Unit Convectors)		
)		
137	Heating Coils in Ballast Tanks)		
)		
138	Range Hoods and Grease Filters)		
)		
<u>Plumbing System</u>			
)		
)		
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Water Level and Draft Indicator System</u>		
	Type: Bristol		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer: <u>Unknown</u> (date)		
	Corrections of discrepancies performed by Maintenance personnel at time of inspection.		
151A	Comparative Water Reading System		
	Water Level - Indicator Comparative Readings - See Attachment No. 1		

Miscellaneous Steel Tanks

- 152 Fresh Water Supply)
- 152a Salt Water Tanks)
- 153 Hot Water Storage)
- 154 Cooling Water Expansion)
- 155 Fuel Tanks)
- 156 Lube Oil Tanks)

8. Condition of Miscellaneous Installations

- 157 Brows (Not Navy owned)
- 158 Galley and Mess Equipment Not applicable
- 159 Clinometers

	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
--	----------------	------------------	-----------------

	S		S
--	---	--	---

	S		S
--	---	--	---

	S		S
--	---	--	---

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 26 September 1969 with River Stage at 5.6', are as follows:

Port Side	Forward	50'
Starboard Side	Forward	50'
Port Side	Amidships	50'
Starboard Side	Amidships	49'
Port Side	Aft	51'-2"

9. Dry Dock Basin (Cont'd)

Starboard Side

Aft

50'-3"

10. Submergence Test. Test was conducted on 11 February 1969. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open-	18" Free board	0820
Stop Flooding-	25' - 7" over Keel Blocks	0850
Start Pumps-	25' - 7" over Keel Blocks	0930
Stop Pumps-	18" Free board	1003

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in Lieu of careening. (See Diver's Report).

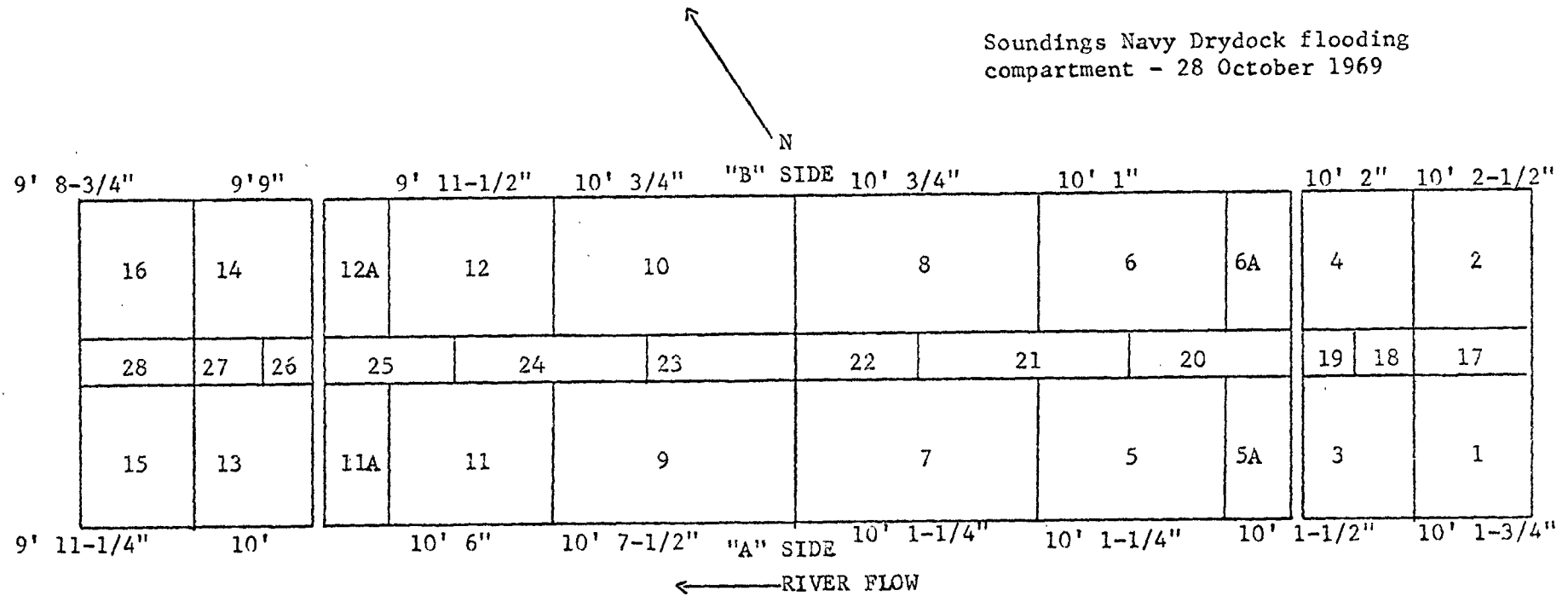
12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

NONE

13. Improvements. The following improvements to the dock are recommended: NONE

ATTACHMENT NO. 1

Soundings Navy Drydock flooding
compartment - 28 October 1969



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

All drydock gauges adjusted to within 2"

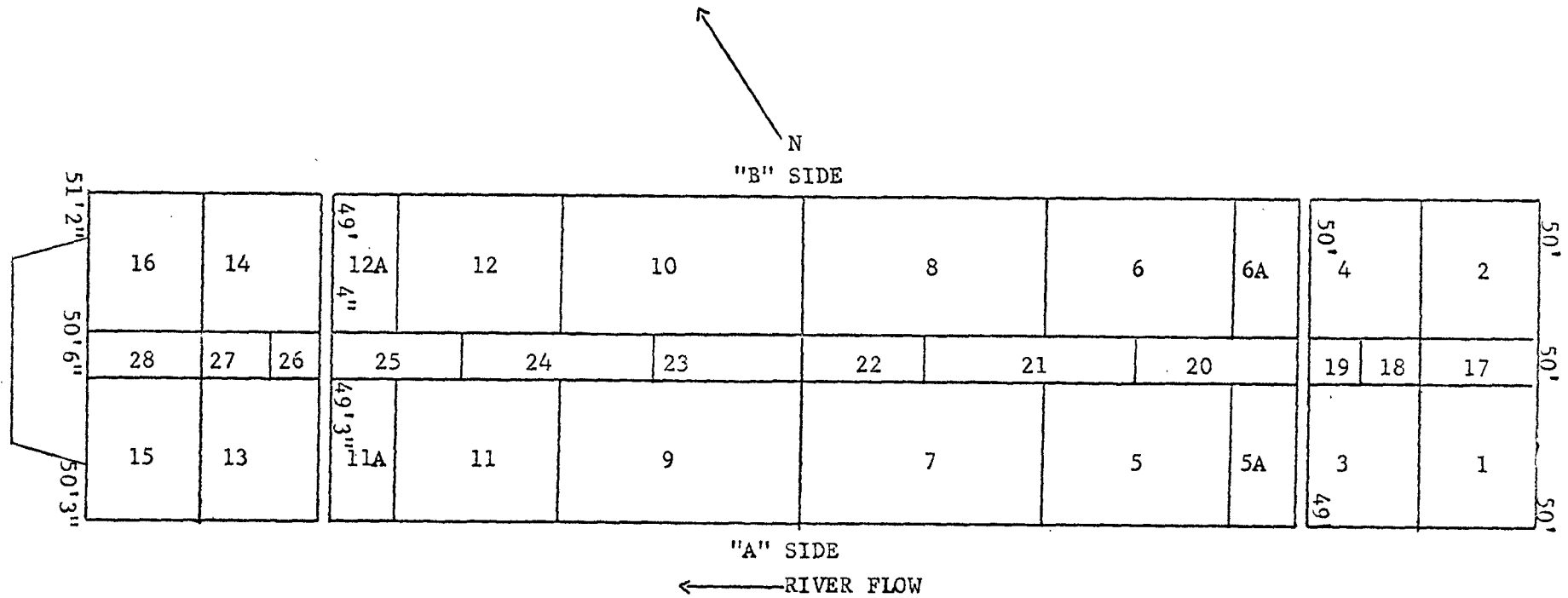
Drydock indicators

13' Aft

13'3 Forward

PSY500006650

ATTACHMENT NO. 2



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

Basin soundings September 27, 1969

Time 12:30 P.M.

River - 3'

PSY500006651

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	<u>Estimated Cost</u>
5	Pontoon deck is rusting and requires cleaning and painting for preservation. Some pitting was found.	Within the next 12 months remove wood decking, blocks and debris, sandblast and preserve with 1 coat of inorganic zinc, 1 tie coat and 1 color coat.	\$85,000

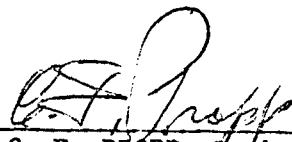
PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
3	Yes	Yes	
4	Yes	Yes	
8	Yes	Yes	
9	No	Yes	
107	Yes	Yes	
144	Yes	Yes	


PSY500006653

PART V. Certification and Signatures

This report is the results of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District and representatives of the Contractor.



C. F. PROPP, Dockmaster
Port of Portland



W. L. Seth, SUPSHIP 13 Seattle
Member of Board

FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97220

ASTORIA
325-4372

DIVER'S REPORT

Surveyed PORT OF PORTLAND DRYDOCK NO. 3
Requested by THE PORT OF PORTLAND V-7348
Nature of Accident N/A
Survey Started 0800 Hrs, 28 October 1969 Completed 1600 Hrs, 29 October 1969
Condition of Water MURKY - GOOD VISIBILITY FOR TWO FEET

REMARKS

I made an underwater examination of the above named drydock, starting at the bow and working aft, examining each of the six pontoons in lateral passes of 5 foot increments.

I found the following:

Bow Apron: The overall condition is good. I found a few blisters in the paint, but no rust was apparent.

Pontoon Number One:

- A. 2 feet aft of bow, 12 feet in from port side, 2 feet of weld is rusty.
- B. 10 feet aft of bow, 12 feet in from starboard side, there is a rusty scratch approximately 10 inches long.
- C. 30 feet aft of bow, 15 feet in from starboard side, there is a patch of rust, 5 inches long, 2 inches wide.
- D. 40 feet aft of bow, 20 feet in from starboard side, there is a rusty scratch approximately 12 inches long.
- E. There are spots of rust on the starboard pump sump approximately 55 feet aft of the bow.
- F. There is rust along a few feet of weld on the port pump sump approximately 55 feet aft of the bow.
- G. There are approximately 25 other small spots of rust, approximately the size of a dime, scattered irregularly throughout the bottom of Pontoon No. 1.

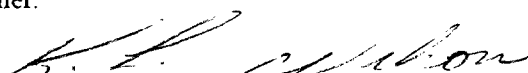
Pontoon Number Two:

- A. There is a rusty strip along the bow edge of Pontoon No. 2, approximately 25 feet in from the starboard side.
- B. 5 feet aft of the bow, 18 feet in from the port side, there is a patch of rust 4 inches long, 1 inch wide.
- C. 10 feet aft of bow, 40 feet in from the port side, 6 feet of weld is rusty.
- D. There is one small rust spot near the center of Pontoon No. 2.

Pontoon Number Three:

- A. At midship on the bow edge there is a rusty area where a bilge block had set.

I hereby certify to the above statements being true to the best of my belief.


MARINE DIVER

FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97220

ASTORIA
325-4372

DIVER'S REPORT

Surveyed PORT OF PORTLAND DRYDOCK NO. 3
Requested by THE PORT OF PORTLAND V-7348
Nature of Accident N/A
Survey Started 0800 Hrs, 28 October 1969 Completed 1600 Hrs, 29 October 1969
Condition of Water MURKY - GOOD VISIBILITY FOR TWO FEET

REMARKS

Pontoon Number Three: Cont'd:

- B. 5 feet aft of the bow, 20 feet in from the port side, there is a patch of rust 3 inches long, 1-1/2 inches wide.
- C. 10 feet aft of the bow 6 feet of weld along the port side is rusty.
- D. There are approximately 20 other small rust spots, approximately the size of a dime, scattered irregularly throughout the bottom of Pontoon No. 3.

Pontoon Number Four:

- A. 10 feet aft of the bow there is a rusty area where a keel block had set.
- B. 35 feet aft of the bow, 6 feet in from the port side, there is a patch of rust along a weld, 6 inches long by 2 inches wide.
- C. 55 feet aft of the bow, 20 feet in from the port side, there is scattered rust along several feet of weld on the pump sump.
- D. 80 feet aft of the bow, 30 feet in from the port side, there is an area of rust 12 inches in diameter.
- E. There are approximately 15 other small spots of rust, approximately the size of a dime, scattered throughout the bottom of Pontoon No. 4.

Pontoon Number Five:

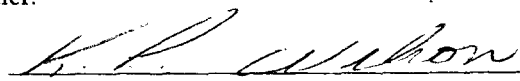
- A. 5 feet aft of the bow, along the port edge, there are 2 patches of rust, each approximately 3 inches square.
- B. 25 feet aft of the bow, 40 feet in from the port side, there is rust along 2 feet of weld on the pump sump.
- C. 65 feet aft of the bow, 15 feet in from the port side, there is a rusty scratch approximately 8 inches long.
- D. 85 feet aft of the bow, 28 feet in from the port side, 6 feet along a weld is rusty.

Pontoon Number Six:

45 feet aft of the bow, approximately amidship, 6 feet along a weld is rusty.

Stern Apron: Paint is in good condition.

I hereby certify to the above statements being true to the best of my belief.


MARINE DIVER

FRED DEVINE DIVING & SALVAGE CO., INC.

PORTLAND
254-4112

3405 N. E. 82ND AVENUE
PORTLAND, OREGON 97220

ASTORIA
325-4372

DIVER'S REPORT


Surveyed PORT OF PORTLAND DRYDOCK NO. 3
Requested by THE PORT OF PORTLAND V-7348
Nature of Accident N/A
Survey Started 0800 Hrs, 28 October 1969 Completed 1600 Hrs, 29 October 1969
Condition of Water MURKY - GOOD VISIBILITY FOR TWO FEET

REMARKS

In addition to the various spots of weld indicated above, I found several blisters in the paint where no rust was showing. As indicated above, the spots of weld are mostly concentrated in the forward half of the drydock bottom.

The overall condition of the paint on the drydock bottom is very good.

I hereby certify to the above statements being true to the best of my belief.



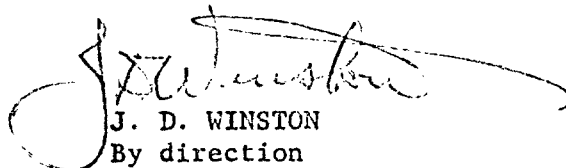
MARINE DIVER

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
13th NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 461-1405
7 APR 1969

From: Supervisor of Shipbuilding, Conversion, and Repair, USN
13th Naval District
To: The Port of Portland, Portland, Oregon
Subj: Contract NObs-4315, Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69
Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3 cys)
(2) Diver's Report of underwater body of YFD-69

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Lessee's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.
2. Further, the Lessee is requested to submit a schedule for accomplishment of noted deficiencies within 30 days.
3. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


J. D. WINSTON
By direction

Copy to: (ea w/encls)
NAVSHIPSYSCOM (Code 07513) (2)
COMSERVPAC
CNO (OP-436)
→ Mr. C. F. Propp - The Port of Portland (4)

PSY500006658

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOy Lease)

REPORT BUDOCKS 11014-1

for the period ending

February 1969
(Month and Year)

ENCLOSURE (1)

PSY500006659

PART I - General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard; steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The previous material inspection of the YFD-69 was made during November 1967.
4. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member and Mr. D. L. Young, Office of the Supervisor of Shipbuilding, Conversion and Repair, USN, 13th Naval District, Seattle, Washington; and Mr. C. F. Propp of the Port of Portland. The inspection of the dry dock was conducted during the week of 10 February 1969.
5. The following components were placed in preservation without repair at last major overhaul: None
6. The following equipment is stored ashore:

Equipment

Condition

Location

None

7. There is no towing equipment for this drydock. Original towing equipment was borrowed from AFDM-6.

Enclosure (1)

PSY500006660

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Unsatisfactory
Mechanical	(Part II 4)	Satisfactory
Electrical	(Part II 5)	Satisfactory
Fittings	(Part II 6)	Unsatisfactory
Utilities	(Part II 7)	Unsatisfactory
Miscellaneous	(Part II 8)	Satisfactory
Cleanliness		Satisfactory
Preservation of equipment not in use	(Part 1 6)	Satisfactory
Overall Material Condition		Satisfactory

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Exterior</u>			
	<u>Pontoon</u>			
1	Bottom	(See Divers Report, Enclosure (2))	S	S
	Sides		S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	U ✓		S
4	Above Water line	U ✓		S
5	Deck	S		S
	<u>Wingwalls</u>			
6	Outboard face	S		S
7	Inboard face	S		S
8	Ends	S		S
9	Deck	U ✓		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	S		S
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 6"

Bridge Structure

40 Exterior)
) Not applicable
 41 Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Crane Runways</u>				
42	Trusses)			
)			
43	Rails) Not applicable			
)			
44	Wood Decking)			
<u>Connections between sections</u>				
45	Locking Logs)			
)			
46	Joints)			
	) Not applicable			
47	Bridges .)			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
	) Not applicable					
50	Gasoline Engines)					

4. Condition of Mechanical Installation (Cont'd)

Item <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
51	<u>Boiler</u> Not applicable				
	Date last inspected: _____				
	Days idle since last inspection: _____				
			Not applicable		
52	Water Distillation Unit				
53	Walk-in				
54	Reach-in				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
61	Salt Water Pumps	Not applicable			
62	Fuel Oil Pumps	Not applicable			
63	Drainage Pumps	Not applicable			
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S

Weight Handling Equipment

Cranes

Type:)	
Maker:	)	Not applicable
Capacity: _____)	
66	Structural)
67	Electrical)
68	Mechanical	) Not applicable
69	Safety)
70	Derricks)

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	<u>Not applicable</u>			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	70	S	S
<u>Switchgear</u>					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

Item No.	Item	No. Installed	No. Inspected	Condition	
				Current	Previous
	<u>Panelboards</u>				
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
	<u>Transformers</u>				
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

Item No.	Item	Condition	
		Current	Previous
	<u>Blocking</u>		

6. Condition of Fittings

Item No.	Item		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
91	Anchors)		
92	Chain)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	S
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
102	Ladders	S		S
103	Handrails	S		U
104	Platforms	S		S
105	Gratings	S		S
106	Sidewall Jacking Equipment			
	<u>Pier Moorings</u>			
107	Spuds	U		S
108	Mooring Guides	S		S
109	Alignment between Pier and Sections	S		S
110	Draft Gages	S		U
111	Davits			
	Not applicable			
112	Fenders	S		U

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
113A	Vacuum Piping	S	U
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	U
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	U
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

Item No.	Item	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	S	U
130	Air Vent System	S	U
	<u>Heating and Ventilating System</u>		
131	Piping and Ducts)		
132	Ventilation & Exhaust Outlets) Not applicable		
133	Ventilation Fans)		
134	Vent Valves	S	S
135	Unit Heaters)		
136	Unit Convectors)		
137	Heating Coils in Ballast Tanks)		
138	Range Hoods and Grease Filters)		
	<u>Plumbing System</u>)		
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	U	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
---------------------------	-------------	------------------------------------	-----------------

Water Level and Draft Indicator System

Type: Bristol

151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
-----	--	---	---

Scheduled Date of Next Inspection by Manufacturer: Unknown
(date)

Corrections of discrepancies performed by Maintenance personnel at time of inspection.

151A Comparative Water Reading System

Water Level - Indicator Comparative Readings

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
1	6' - 5"	6' - 4"	1"
2	6' - 2"	6' - 1"	1"
3	6' - 5"	6' - 5"	0"
4	6' - 4"	6' - 2"	2"
5	5' - 9-3/4"	5' - 10"	1/4"
6	5' - 8 1/2"	5' - 10"	1 1/2"
7	5' - 8-3/4"	5' - 8"	3/4"
8	5' - 8-3/4"	5' - 9"	3/4"
9	5' - 11 1/2"	6' - 1"	1 1/2"
10	5' - 4"	5' - 5"	1"
11	5' - 10 1/2"	6' - 0"	1 1/2"
12	5' - 7-3/4"	5' - 9"	1 1/4"
13	5' - 10"	5' - 11"	1"

7. Condition of Utilities (Cont'd)

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
14	5' - 10½"	5' - 11"	½"
15	5' - 10½"	5' - 11"	½"
16	5' - 9-3/4"	5' - 11"	1½"

			<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
Miscellaneous Steel Tanks				
152	Fresh Water Supply)		
)		
152a	Salt Water Tanks)		
)		
153	Hot Water Storage)		
)		
154	Cooling Water Expansion)		
)		
155	Fuel Tanks)		
)		
156	Lube Oil Tanks	)	S	S

8. Condition of Miscellaneous Installations

157	Brows (Not Navy owned)	S	S
158	Galley and Mess Equipment	Not applicable	
159	Clinometers	S	S

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 13 February 1969 with River Stage at 5.6', are as follows:

Port Side	Forward	53' - 10"
Starboard Side	Forward	53' - 0"
Port Side	Amidships	53' - 4"
Starboard Side	Amidships	54' - 10"
Port Side	Aft	55' - 10"

9. Dry Dock Basin (Cont'd)

Starboard Side

Aft

54' - 6"

10. Submergence Test. Test was conducted on 11 February 1969. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open-	18" Free board	1000
Stop Flooding-	25' - 7" over Keel Blocks	1030
Start Pumps-	25' - 7" over Keel Blocks	1100
Stop Pumps-	18" Free board	1125

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in Lieu of careening. (See Diver's Report).

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

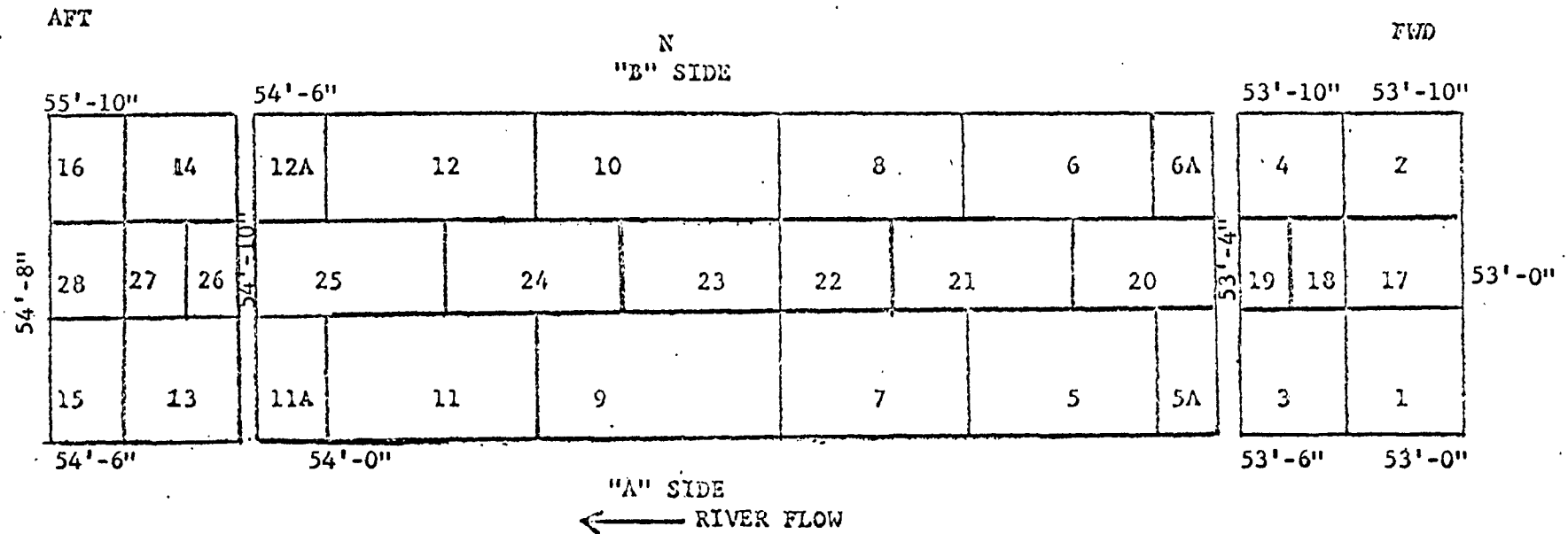
NONE

13. Improvements. The following improvements to the dock are recommended: NONE

Soundings under Y. F. D. 69 River gauge 5.6"

13 Feb 1969

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

ATTACHMENT NO. 2



"B" SIDE

16	14		12A	12	10	8	6	6A	4	2	
28	27	26	25	24	23	22	21	20	19	18	17
15	13		11A	11	9	7	5	5A	3	1	

"A" SIDE



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69


PART III. <u>Description of Deficiencies and Recommended Action</u>			<u>Estimated Cost</u>
<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	
<i>Paint</i> → 3	End sections along waterline require sealing and painting.	Scale and paint end sections along waterline.	\$ 850.00
→ 4	End sections are rusting and require scaling and painting.	Scale and paint rusted areas and primed areas with Haze Grey paint, or black Boottop.	1150.00
8	Wingwall end sections are rusting and require sealing and painting. Particular attention should be paid to the overhanging arms.	Scale and paint the rusted areas of both end sections. The underside of the overhanging arms and the self-docking flats should be scaled and painted with Haze Grey.	1500.00
<i>Paint</i> → 9	Port and starboard wingwall deck requires scaling touch-up and coat of Haze Grey.	Scale and paint as required.	1575.00
	Port and starboard machinery decks require scaling and painting with Haze Grey. Bulkheads should also be touched up with yellow.	Scale and paint as required.	1275.00
107	Mooring spuds require lubrication and paint.	Scale and paint mooring spuds as required. Lubricate outer face to provide free operation.	250.00
→ 144 <i>Fleet.</i>	Several floodlight reflectors and lamps are broken and inoperative.	Repair damaged reflectors and replace missing lamps on both wingwalls.	300.00

PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

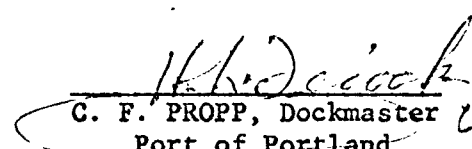
<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
7	Yes	Yes	
8	No	Yes	
100	Yes	Yes	
103	Yes	Yes	
110	Yes	Yes	
112	Yes	Yes	
113A	Yes	Yes	
122-125-129	Yes	Yes	
130	Yes	Yes	

PART V. Certification and Signatures

This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District and representatives of the Contractor.



W. L. SETH, SUPSHIP 13 Seattle
Senior Member of Board

1st. 

C. F. PROPP, Dockmaster
Port of Portland



D. L. YOUNG, Member
SUPSHIP 13

RECEIVED

8 A.M. JAN 25 1968

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION, AND REPAIR, USN
THIRTEENTH NAVAL DISTRICT
2400 11TH AVENUE S.W.
SEATTLE, WASHINGTON 98134

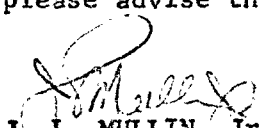
05-737,01

IN REPLY REFER TO:
NObs-4315
Ser 460-~~551~~ 551
24 January 1968

THE PORT OF PORTLAND

From: Supervisor of Shipbuilding, Conversion and Repair, USN,
13th Naval District
To: The Port of Portland, Portland, Oregon
Subj: Contract NObs-4315, Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69
Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3 cys)
(2) Diver's Report of underwater body of YFD-69

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Contractor's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.
2. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


J. L. MULLIN, Jr.
By direction

Copy to: (ea w/encls)
NAVSHIPSYSCOM (Code 07413)(2)
COMSERVPAC
CNO (OP-436)
Mr. H. L. Feiock - The Port of Portland(4)
Code 460(6)

	Action	Info
Gen. Mgr.		
Asst. Gen. Mgr.		
Aviation		
Ind. Devel.		
Marine	/	
Ch Engr.		
Compt.		X
Personnel		
Planning		
Pub. Affairs		
Sp. Projects		
Attorney		
Consultant		
RF		X
No. of Copies		

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOy Lease)

REPORT BUDOCKS 11014-1

for the period ending

November 1967
(Month and Year)

ENCLOSURE (1)

PSY500006687

PART I - General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard, steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The previous material inspection of the YFD-69 was made during October 1966.
4. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member and Mr. D. L. Young, Office of the Supervisor of Shipbuilding, Conversion and Repair, USN, 13th Naval District, Seattle, Washington; and Mr. H. L. Feiock of the Port of Portland. The inspection of the dry dock was conducted during the week of 6 November 1967.
5. The following components were placed in preservation without repair at last major overhaul: None
6. The following equipment is stored ashore:

Equipment

Condition

Location

None

7. There is no towing equipment for this drydock. Original towing equipment was borrowed from AFDM-6.

Enclosure (1)

PSY500006688

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Satisfactory
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Unsatisfactory
Utilities	(Part II 7)	Unsatisfactory
Miscellaneous	(Part II 8)	Good
Cleanliness		Good
Preservation of equipment not in use (Part 1 6)		Good
Overall Material Condition		Good

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
	<u>Exterior</u>			
	<u>Pontoon</u>			
1	Bottom	(See Divers Report, Enclosure (2))	S	S
	Sides		S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	S		S
4	Above Water line	S		S
5	Deck	S		S
	<u>Wingwalls</u>			
6	Outboard face	S		U
7	Inboard face	U		S
8	Ends	U		S
9	Deck	S		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	S		U
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 0'

Bridge Structure

40. Exterior)
) Not applicable
 41. Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u>	<u>Previous</u>
<u>Crane Runways</u>				
42	Trusses)			
)			
43	Rails)			
)			
44	Wood Decking)			
<u>Connections between sections</u>				
45	Locking Logs)			
)			
46	Joints)			
)			
47	Bridges)			
)			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Itemk</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
)					
50	Gasoline Engines)					

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
51	<u>Boiler</u> Not applicable				
	Date last inspected: _____)				
	_____)				
	Days idle since last inspection: _____)				
	_____)				
52	Water Distillation Unit				
53	Walk-in				
54	Reach-in				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition Previous</u>
61	Salt Water Pumps Not applicable				
62	Fuel Oil Pumps Not applicable				
63	Drainage Pumps Not applicable				
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
	<u>Weight Handling Equipment</u>				
	<u>Cranes</u>				
	Type:)				
	Maker:)				
	Capacity: _____)				
66	Structural)				
67	Electrical)				
68	Mechanical)				
69	Safety)				
70	Derricks)				

Not applicable

Not applicable

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	<u>Not applicable</u>			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	50	S	S
<u>Switchgear</u>					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Panelboards</u>					
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
<u>Transformers</u>					
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Blocking</u>			

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
91	Anchors)		
92	Chain)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		U	S
101	Stairs		S	U

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
102	Ladders	S		S
103	Handrails	U		U
104	Platforms	S		S
105	Gratings	S		S
106	Sidewall Jacking Equipment	Not applicable		
	<u>Pier Moorings</u>			
107	Spuds	S		U
108	Mooring Guides	S		S
109	Alignment between Pier and Sections	S		S
110	Draft Gages	U		S
111	Davits	Not applicable		
112	Fenders	U		S

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
113A	Vacuum Piping	U	S
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	U	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	U	S
126	Fire Extinguishing and Flushing System	S	U

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	U	S
130	Air Vent System	U	S
<u>Heating and Ventilating System</u>			
131	Piping and Ducts)		
132	Ventilation & Exhaust Outlets) Not applicable		
133	Ventilation Fans)		
134	Vent Valves	S	S
135	Unit Heaters)		
136	Unit Convectors)		
137	Heating Coils in Ballast Tanks)		
138	Range Hoods and Grease Filters)		
<u>Plumbing System</u>			
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>

Water Level and Draft Indicator System

Type: Bristol

151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
-----	--	---	---

Scheduled Date of Next Inspection by Manufacturer: Unknown
(date)

151A Comparative Water Reading System

Water Level - Indicator Comparative Readings

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
1	6' - 5"	6' - 4"	1"
2	6' - 2"	5' - 9"	5"
3	6' - 5"	7' - 3"	10"
4	6' - 4"	5' - 11"	3"
5	5' - 9-3/4"	5' - 10"	1/4"
6	5' - 8 1/2"	5' - 10"	1 1/2"
7	5' - 8-3/4"	5' - 8"	3/4"
8	5' - 8-3/4"	5' - 9"	3/4"
9	5' - 11 1/2"	6' - 1"	1 1/2"
10	5' - 4"	5' - 9"	5"
11	5' - 10 1/2"	6' - 0"	1 1/2"
12	5' - 7-3/4"	5' - 9"	1 1/4"
13	5' - 11 1/4"	6' - 2"	2-3/4"

7. Condition of Utilities (Cont'd)

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
14	5' - 10½"	6' - 0"	1½"
15	5' - 10½"	6' - 2"	3½"
16	5' - 9-3/4"	5' - 11"	1½"

Note: Indicators #2, 3 and 10 were corrected at time of inspection.

			<u>Current</u>	<u>Condition</u>	<u>Previous</u>
Miscellaneous Steel Tanks					
152	Fresh Water Supply)			
)			
152a	Salt Water Tanks)			
)			
153	Hot Water Storage)			
)			
154	Cooling Water Expansion)			
)			
155	Fuel Tanks)			
)			
156	Lube Oil Tanks	)	S		S

8. Condition of Miscellaneous Installations

157	Brows (Not Navy owned)	S	S
158	Galley and Mess Equipment	Not applicable	
159	Clinometers	S	S

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 15 November 1967 with River Stage corrected to 00', are as follows:

Port Side	Forward	46' - 8"
Starboard Side	Forward	47' - 5"
Port Side	Amidships	49' - 5"
Starboard Side	Amidships	47' - 5"
Port Side	Aft	49' - 2"

9. Dry Dock Basin (Cont'd)

Starboard Side

Aft

47' - 11"

10. Submergence Test. Test was conducted on 16 November 1967 The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open-	18" Free board	1400
Stop Flooding-	25' - 7" over Keel Blocks	1430
Start Pumps-	25' - 7" over Keel Blocks	1500
Stop Pumps-	18" Free board	1525

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in Lieu of careening.

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

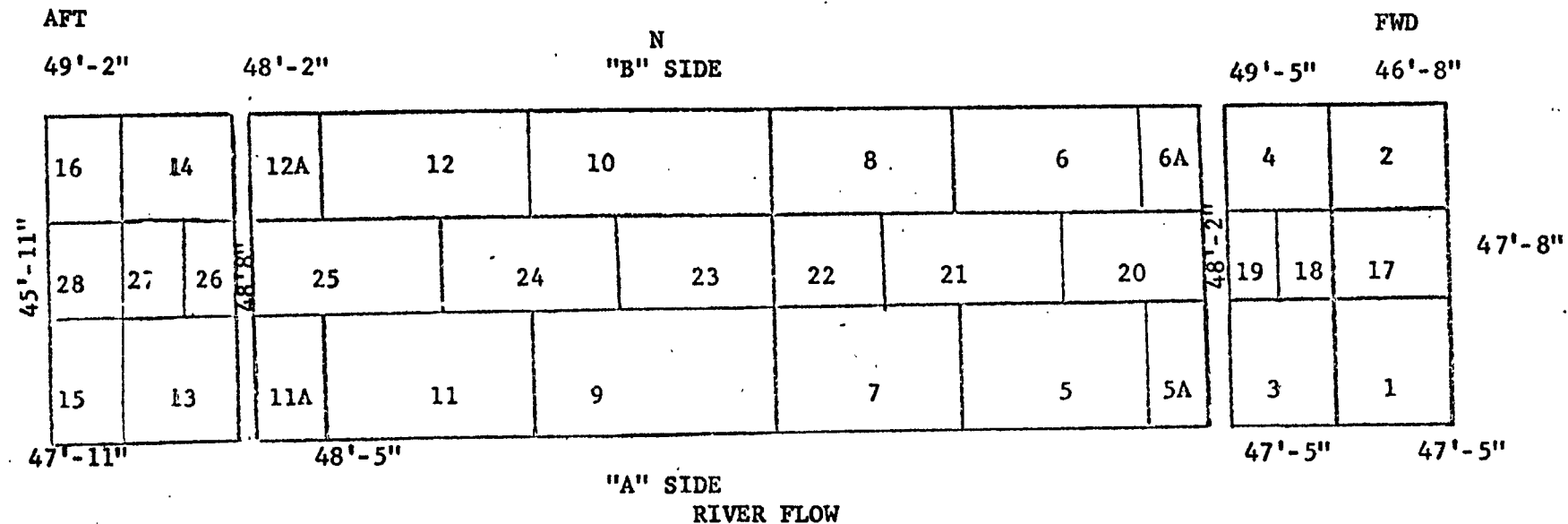
NONE

13. Improvements. The following improvements to the dock are recommended: NONE

Soundings under Y. F. D. 69 River gauge
Corrected to 00'

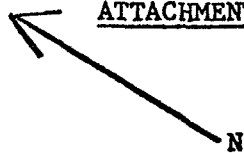
15 Nov 1967

ATTACHMENT NO. 1



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

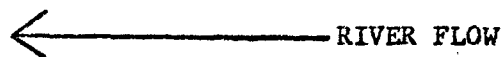
ATTACHMENT NO. 2



"B" SIDE

16	14		12A	12	10	8	6	6A	4	2	
28	27	26	25	24	23	22	21	20	19	18	17
15	13		11A	11	9	7	5	5A	3	1	

"A" SIDE



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

Feiock , Copy

PART III. <u>Description of Deficiencies and Recommended Action</u>			<u>Estimated Cost</u>
<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be Taken</u>	
7	Many frame numbers are obscured and unreadable.	Re-paint frame numbers. <i>March 18</i>	\$ 350.00
8	Stbd end face of wingwall (offshore) is rusting in many areas.	Re-paint end face as required. <i>March 18</i>	600.00
100	Filler compound around hatch openings on top of wingwalls is coming out causing leaks onto safety deck.	Re-seal all manholes and covers where filler compound is coming out. <i>completed</i>	150.00
103	Handrails are not the required 42" height as called for in the Dept. of Labor, Safety and Health Regulations.	Raise inboard and outboard handrails to required height. <i>2</i>	5000.00
110	Draft gage figure boards are unreadable.	Repair and re-paint figure boards as required. <i>April 5</i>	2500.00
112	Fender on stbd end face of wingwall (offshore) is broken and deteriorated.	Repair damaged and deteriorated fender as required. Prime and paint behind all fender area. <i>March 25</i>	1500.00

PART III. Description of Deficiencies and Recommended Action (Cont'd)

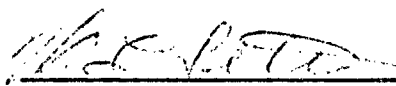
<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to be taken</u>	<u>Estimated Cost</u>
113A	Vacuum Priming Valves in end section are blocked allowing water to enter compartment.	Remove valves, thoroughly clean and re-paint. <i>april 15</i>	\$ 450.00
122-125-129	Various valves in air, water and steam service piping and risers are leaking. Some valves have bent stems.	Repair or replace leaking valves as required. <i>april 15</i>	250.00
130	Several mushroom vent covers are damaged along port wing-wall.	Repair damaged vents as required and prime and paint for preservation. <i>april 10</i>	800.00

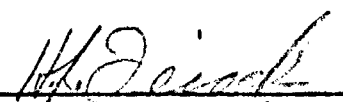
PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

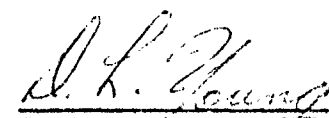
<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
6	Yes	Yes	
33	Yes	Yes	
101	Yes	Yes	
103	Yes	Yes	
107	Yes	Yes	
126	Yes	Yes	

PART V. Certification and Signatures

This report is the result of a joint inspection made by representatives of the Supervisor of Shipbuilding, Conversion, and Repair, USN, 13th Naval District and representatives of the Contractor.


W. L. SETH, SUPSHIP 13, Seattle
Senior Member of Board


H. L. FEIOCK, Dockmaster
Port of Portland


D. L. YOUNG, Member
SUPSHIP 13

ORIGINAL

DEPARTMENT OF THE NAVY
INDUSTRIAL MANAGER USN 13TH NAVAL DISTRICT
2400-11TH AVENUE S. W.
SEATTLE, WASHINGTON 98134

IN REPLY REFER TO:
NObs-4315
Ser 1460-1692
16 Dec 1966

From: Industrial Manager, USN, 13th Naval District
To: The Port of Portland, Portland, Oregon

Subj: Contract NObs-4315, Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69

Encl: (1) Annual Report of Material Inspection of Floating Drydock
YFD-69 (3cys)
(2) Diver's Report of underwater body of YFD-69

1. Correction of deficiencies as noted in enclosure (1) and (2) is the Contractor's responsibility and upon completion thereof, a re-inspection will be accomplished by this activity.
2. In the event there are any questions with respect to the noted deficiencies and necessary correction required, please advise this office accordingly.


J. L. MULLIN, JR.
By direction

Copy to: (ea w/encs)
NAVSHIPSYSYCOM (Code 07413) (2 cys)
COMSERVPAC
CNO (OP-436)
Mr. H. L. Feiock - The Port of Portland (4 cys)

ORIGINAL

PSY500006715

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69

(Number)

NObs-4315

(Activity of NOy Lease)

REPORT BUDOCKS 11014-1

for the period ending

October 1966

(Month and Year)

ENCLOSURE (1)

PSY500006716

PART I General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard, steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The dry dock was self-docked completely during the period of 14 June to 26 August 1965.
4. The previous material inspection of the YFD-69 was made during June-August 1965.
5. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member and Mr. D. L. Young, Office of the Industrial Manager, USN, 13th Naval District, Seattle, Washington; and Mr. H. L. Feiock of the Port of Portland. The inspection of the dry dock was conducted during October 1966.
6. The following components were placed in preservation without repair at last major overhaul: None
7. The following equipment is stored ashore:

Equipment

Condition

Location

None

8. There is no towing equipment for this drydock. Original towing equipment was borrowed from AFDM-6.

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Good
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Good
Utilities	(Part II 7)	Good
Miscellaneous	(Part II 8)	Good
Cleanliness		Good
Preservation of equipment not in use	(Part 1 6)	Good
Overall Material Condition		Good

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.
2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:	

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. <u>Condition of Hull</u>		<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Item No.</u>					
	<u>Exterior</u>				
	<u>Pontoon</u>				
1.	Bottom	(See Divers Report, Enclosure (2))	S		S
	Sides			S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
2	Below water line	S		S
3	Water line	S		S
4	Above Water line	S		S
5	Deck	S		S
	<u>Wingwalls</u>			
6	Outboard face	U		U
7	Inboard face	S		S
8	Ends	S		S
9	Deck	S		S
	<u>Interior</u>			
10	Compartment No. 1	S		S
11	Compartment No. 2	S		S
12	Compartment No. 3	S		S
13	Compartment No. 4	S		S
14	Compartment No. 5	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment No. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Conditon</u>	<u>Previous</u>
30	Compartment No. 17	S		S
31	Compartment No. 18	S		S
32	Compartment No. 19	S		S
33	Compartment No. 20	U		U
34	Compartment No. 21	S		S
35	Compartment No. 22	S		S
36	Compartment No. 23	S		S
37	Compartment No. 24	S		S
38	Compartment No. 25	S		S
39	Compartment No. 26, 27 & 28	S		S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 0'

Bridge Structure

40 Exterior)
) Not applicable
 41 Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
<u>Crane Runways</u>				
42	Trusses)			
43	Rails)			
	) Not applicable			
q 44	Wood Decking)			
<u>Connections between sections</u>				
45	Locking Logs)			
46	Joints)			
	) Not applicable			
47	Bridges)			
48	Stern Gate)			

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
49	Diesel Engines)					
	) Not applicable					
50	Gasoline Engines)					

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
51	<u>Boiler</u> Not applicable				
	Date last inspected: _____)				
	_____)				
	Days idle since last inspection: _____)				
	_____)				
52	Water Distillation Unit)				
53	Walk-in)				
54	Reach-in)				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	<u>Pumps</u>				
59	Main Dewatering Pumps	8	8	S	S
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition Previous</u>
61	Salt Water Pumps	Not applicable			
62	Fuel Oil Pumps	Not applicable			
63	Drainage Pumps	Not applicable			
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
<u>Weight Handling Equipment</u>					
<u>Cranes</u>					
	Type:	) Not applicable			
	Maker:				
	Capacity: _____)			
66	Structural	) Not applicable			
67	Electrical				
68	Mechanical				
69	Safety				
70	Derricks				

4. Condition of Mechanical Installation (Cont'd).

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u> <u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
<u>Generators</u>					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
<u>Motors</u>					
77	AC	73	24	S	S
<u>Switchgear</u>					
78	AC	8	4	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	<u>Panelboards</u>				
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
881	Control Boards	2	2	S	S
	<u>Transformers</u>				
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	S

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	<u>Blocking</u>		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
)		
91	Anchors)		
)		
92	Chain)		
)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	S
101	Stairs		U	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
102	Ladders	S		U
103	Handrails	U		S
104	Platforms	S		S
105	Gratings	S		S
106	Sidewall Jacking Equipment			
	Not applicable			
	<u>Pier Moorings</u>			
107	Spuds	U		S
108	Mooring Guides	S		S
109	Alignment between Pier and Sections	S		S
110	Draft Gages	S		S
111	Davits			
	Not applicable			
112	Fenders	S		S

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
	<u>Valves and Valve Operators</u>		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	U	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System	Not applicable		
128	Sprinkler System	Not applicable		
129	Compressed Air System		S	S
130	Air Vent System		S	S
	<u>Heating and Ventilating System</u>			
131	Piping and Ducts)		
132	Ventilation & Exhaust Outlets)		
		Not applicable		
133	Ventilation Fans)		
134	Vent Valves		S	S
135	Unit Heaters)		
136	Unit Convectors)		
137	Heating Coils in Ballast Tanks)		
138	Range Hoods and Grease Filters)		
	<u>Pumbing System</u>			
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
140	Fixtures Not applicable		
	<u>Lighting System</u>		
	<u>Interior</u>		
141	Fixtures	S	S
142	Circuits	S	S
	<u>Exterior</u>		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Water Level and Draft Indicator System</u>		
	Type: Pneumerator		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer : <u>Unknown</u> (date)		

151A Comparative Water Reading System

Water Level - Indicator Comparative Readings

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
1	10' - 5 3/4"	10' - 3"	2 3/4"
2	10' - 2 1/4"	9' - 11"	3 1/4"
3	10' - 4 3/4"	10' - 2"	2 3/4"
4	10' - 1 1/4"	9' - 11"	2 1/4"
5	10' - 8 1/4"	10' - 6"	2 1/4"
6	11' - 0"	11' - 0"	0"
7	10' - 6 1/4"	10' - 6"	1/4"
8	10' - 10"	10' - 6"	4"
9	10' - 2"	10' - 4"	2"
10	9' - 11 3/4"	10' - 3"	3 1/4"
11	10' - 0"	10' - 2"	2"
12	9' - 10"	9' - 10"	0"
13	9' - 4 1/4"	10' - 1"	8 1/4"

7. Condition of Utilities (Cont'd)

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
14	9' - 8½"	9' - 11"	2½"
15	9' - 8½"	10' - 1"	4 3/4"
16	9' - 7½"	9' - 10"	2½"

<u>Condition</u>	
<u>Current</u>	<u>Previous</u>

Miscellaneous Steel Tanks

152	Fresh Water Supply)
152A	Salt Water Tanks)
153	Hot Water Storage)
154	Cooling Water Expansion)
155	Fuel Tanks)
156	Lube Oil Tanks)

S S

8. Condition of Miscellaneous Installations

157	Brows (Not Navy owned)
158	Galley and Mess Equipment Not applicable
159	Clinometers

S S
S S

8. Condition of Miscellaneous Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	<u>Life Saving Equipment</u>		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin on 11 October 1966 with River Stage at 1' - 7" elevation, are as follows:

Port Side	Forward	47' - 8"
Starboard Side	Forward	47' - 11"
Port Side	Amidships	49' - 5"
Starboard Side	Amidships	47' - 3"
Port Side	Aft	49' - 2"

9. Dry Dock Basin (Cont'd)

Starboard Side

Aft

48' - 5"

10. Submergence Test. Test was conducted on 12 October 1966. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open-	18" Free board	0940
Stop Flooding-	25' - 7" over Keel Blocks	1010
Start Pumps-	25' - 7" over Keel Blocks	1045
Stop Pumps-	18" Free board	1110

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. An inspection of the bottom of the dock was made by qualified divers in Lieu of careening.

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

NONE

13. Improvements. The following improvements to the dock are recommended: NONE

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to Be Taken</u>	<u>Estimated Cost</u>
6 <i>Painter</i>	Wing passage on ^{PORT} "B" side, offshore end, has heavy build up of rust and scale.	Remove rust, clean, prime and paint.	\$500.00
33 <i>Scale & Paint</i>	Boyancy Chamber, Compartment #20; Rusting is evident behind bulkhead stiffeners and along trusses.	Remove rust and apply new preservative to all rusted areas.	\$800.00
101 <i>Mach. Paint</i>	Stairway from end section platform deck, to center section is twisted at lower end. Welds at lower end are broken.	straighten and re-fasten stairway as required. Prime and paint affected areas.	\$350.00
103 <i>Paint</i>	Handrails and stanchions are rusting on "A" and "B" sides.	Spot prime and paint as required	\$275.00
107 <i>Beam Weep holes Paint</i>	Mooring spuds are rusting at upper areas. ^{Mooring} spud brackets collect water and considerable rust was noted.	Clean & paint upper areas of mooring spuds. Enlarge drain holes in spud brackets to facilitate drainage. Re-preserve as required.	\$750.00
126 <i>Paint Mach.</i>	Fire hose stowage boxes are rusting & deteriorating. Valve packing gland is leaking on fire monitor on "A" side	Clean, repair and paint hose stowage boxes. Repair valve as required	\$250.00

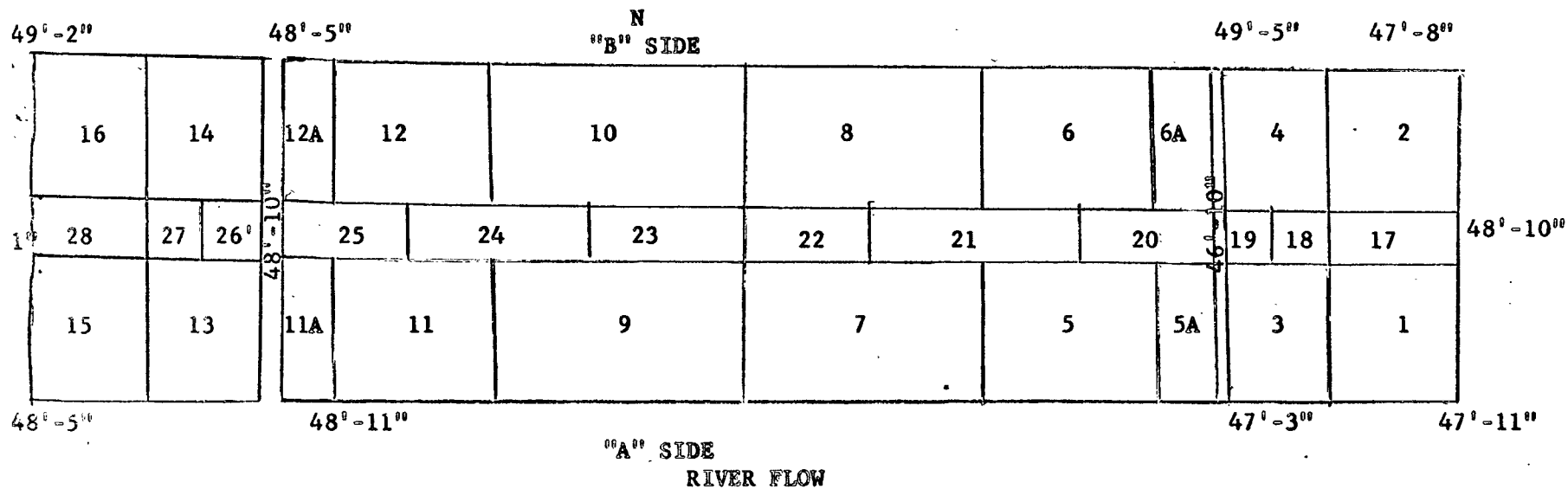
Soundings under Y. F. D. 69 River gauge 1'-7"
Corrected to 00'

11 Oct 1966

ATTACHMENT NO. 1

AFT

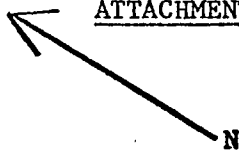
FWD



KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

PSY500006739

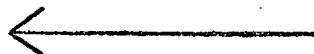
ATTACHMENT NO. 2



"B" SIDE

16	14		12A	12		10		8		6		6A	4	2		
28	27	26	25		24		23		22	21		20		19	18	17
15	13		11A	11		9		7		5		5A	3	1		

"A" SIDE



RIVER FLOW

KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

Must be completed by Feb. 28

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action to Be Taken</u>	<u>Estimated Cost</u>
6 ✓	^{PORT} Wing passage on "B" side, offshore end, has heavy build up of rust and scale.	Remove rust, clean, prime and paint.	\$500.00
33 ✓	Boyancy Chamber, Compartment #20; Rusting is evident behind bulkhead stiffeners and along trusses.	Remove rust and apply new preservative to all rusted areas.	\$800.00
101 ✓	Stairway from end section platform deck, to center section is twisted at Lower end. Welds at lower end are broken.	straighten and re-fasten stairway as required. Prime and paint affected areas.	\$350.00
103 ✓	Handrails and stanchions are rusting on "A" and "B" sides.	Spot prime and paint as required.	\$275.00
107 ✓	Mooring spuds are rusting at upper areas. Mooring spud brackets collect water and considerable rust was noted.	Clean & paint upper areas of mooring spuds. Enlarge drain holes in spud brackets to facilitate drainage. Re-preserve as required.	\$750.00
126 ✓	Fire hose stowage boxes are rusting & deteriorating. Valve packing gland is leaking on fire monitor on "A" side	Clean, repair and paint hose stowage boxes. Repair valve as required.	\$250.00

2,935.00

*FINISHED
2-9-67*

*COMPLETION LETTER.
MAILED 2/14/67*

PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
6	No	No	
33	No	No	
102	Yes	Yes	

PART V. Certification and Signatures

This report is the result of a joint inspection made by representatives of the Industrial Manager, USN, 13th Naval District and representatives of the Contractor.

W. L. Seth

W. L. SETH, INDMAN 13ND, Seattle
Senior Member of Board

H. L. Felock
H. L. FELOCK, Dockmaster
Port of Portland

D. L. Young
D. L. YOUNG, Member
INDMAN 13ND

FRED DEVINE DIVING CO.

PORTLAND
254-4112

Marine Diver

ASTORIA
325-4372

3337 N. E. 132ND AVENUE
PORTLAND, OREGON 97230

REPORT OF DIVER'S SURVEY

Surveyed NAVY DRYDOCK
Requested by THE PORT OF PORTLAND P.O. # T 8795
Nature of Accident NONE
Survey Started 26 SEPTEMBER 1966 0800 Completed 27 SEPTEMBER 1966 1200
Condition of Water MUDDY

REMARKS

I made an underwater examination of the submerged portion of the above named vessel starting at the bow and working toward the stern in 5 foot increments along a rope that was moved after each pass by two men on the surface. I paid particular attention to the condition of the paint during this survey at the specific request of The Port of Portland. The paint on underwater portion of the vessel is in good condition.

The only irregularities in the condition of the vessel are as follows:

- a. *Approximately 8 feet astern from the bow near the center of the drydock is a dent approximately 3 feet in diameter and $1\frac{1}{2}$ inch deep.
 - b. *Approximately 355 feet astern from the bow near the center of the drydock is a dent approximately 1 foot in diameter and 1 inch deep.
 - c. *Approximately 500 feet astern from the bow near the center of the drydock is a dent approximately 1 foot in diameter and 1 inch deep.
 - d. The area in way of the blocks used during the last drydocking were found to be rusted but no pitting of the base metal is apparent.
- * All of the aforementioned indents appear to be old as the paint has not been damaged.

I hereby certify to the above statements being true to the best of my belief.

Ken Dye
KEN DYE

MARINE DIVER

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOy Lease)

REPORT BUDOCKS 11014-1
for the period ending

June - August 1965
(Month and Year)

ENCLOSURE (1)

7712

PSY500006745

PART I General

1. The YFD-69 is a 528-foot overall length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard steel, floating drydock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The dry dock was self-docked completely during the period of 14 June to 26 August 1965. During the docking, repairs were made to a crack in the bottom plating between frame 58-59 "A" side, and a severe dent in the bottom plating between frames 10 - 11, "A" side. Inserts were installed and welded inside and out. Inserts were pressure tested and all welds were X-Rayed and found to be satisfactory. Repairs were made to all valves, reach rods and universals. All silt was removed from ballast tanks and tanks were cleaned, scaled and painted as necessary. See attached Docking Report for hull painting.
4. The previous material inspection of the YFD-69 was made in December 1963.
5. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member and Mr. D. L. Young, Office of the Industrial Manager, USN 13th Naval District Seattle, Washington; and Mr. H. L. Feiock of the Port of Portland. The inspection of the dry dock was conducted during the period of 14 June to 26 August 1965.
6. The following components were placed in preservation without repair at last major overhaul: None
7. The following equipment is stored ashore:

Equipment

Condition

Location

None

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>		<u>Grade</u>
Hull	(Part II 3)	Good
Mechanical	(Part II 4)	Good
Electrical	(Part II 5)	Good
Fittings	(Part II 6)	Good
Utilities	(Part II 7)	Good
Miscellaneous	(Part II 8)	Good
Cleanliness		Excellent

Preservation of equipment not in use (Part I 6)

Overall Material Condition

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.

<u>Term</u>	<u>Definition</u>
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	Exterior		
	Pontoon		
1	Bottom (See Docking Report, Enclosure (2))	S	U
	Sides	S	U

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
2	Below water line	S	U
3	Water line	S	S
4	Above Water line	S	S
5	Deck	S	S
	Wingwalls		
6	Outboard face	U	S
7	Inboard face	S	S
8	Ends	S	S
9	Deck	S	S
	Interior		
10	Compartment No. 1	S	S
11	Compartment No. 2	S	S
12	Compartment No. 3	S	S
13	Compartment No. 4	S	S
14	Compartment No. 5	S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u>	<u>Previous</u>
15	Compartment No. 5A	S		S
16	Compartment No. 6	S		S
17	Compartment No. 6A	S		S
18	Compartment No. 7	S		S
19	Compartment No. 8	S		S
20	Compartment No. 9	S		S
21	Compartment No. 10	S		S
22	Compartment No. 11	S		S
23	Compartment No. 11A	S		S
24	Compartment No. 12	S		S
25	Compartment No. 12A	S		S
26	Compartment No. 13	S		S
27	Compartment No. 14	S		S
28	Compartment NO. 15	S		S
29	Compartment No. 16	S		S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
30	Compartment No. 17	S	S
31	Compartment No. 18	S	S
32	Compartment No. 19	S	S
33	Compartment No. 20	U	S
34	Compartment No. 21	S	S
35	Compartment No. 22	S	S
36	Compartment No. 23	S	S
37	Compartment No. 24	S	S
38	Compartment No. 25	S	S
39	Compartment No. 26, 27 & 28	S	S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth 0 All silt was removed from inside of ballast compartments during the self docking.

Bridge Structure

40 Exterior)
) Not applicable
 41 Interior)

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Crane Runways		
42	Trusses)		
)		
43	Rails)	Not applicable	
)		
44	Wood Decking)		
	Connections between sections		
45	Locking Logs)		
)		
46	Joints)		
	)	Not applicable	
47	Bridges)		
48	Stern Gate)		

4. Condition of Mechanical Installation

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Condition</u>	
				<u>Current</u>	<u>Previous</u>
49	Diesel Engines)				
)				
	)			Not applicable	
50	Gasoline Engines)				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
51	Boiler: Date last inspected:) Not applicable Date last inspected:) Days idle since last inspection:) Not applicable				
52	Water Distillation Unit)				
53	Walk-in)				
54	Reach-in)				
55	Air Compressors	1	1	S	S
56	Oil Purifiers Not applicable				
57	Hydraulic Steering Equipment Not applicable				
58	Hydraulic Gate Operator Not applicable				
	Pumps:				
59	Main Dewatering Pumps	8	8	S	U
60	Fresh Water Pumps Not applicable				

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
61	Salt Water Pumps Not applicable				
62	Fuel Oil Pumps Not applicable				
63	Drainage Pumps Not applicable				
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
Weight Handling Equipment					
Cranes					
	Type: Not applicable				
	Maker:				
	Capacity: _____				
66	Structural)				
)				
67	Electrical)				
)				
68	Mechanical) Not applicable				
)				
69	Safety)				
)				
70	Derricks)				

4. Condition of Mechanical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
71	Capstan	8	8	S	S
72	Deck Winches	Not applicable			
73	Anchor Windlass	<u>Not applicable</u>			
74	Elevators	<u>Not applicable</u>			

5. Condition of Electrical Installation

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
Generators					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
Motors					
77	AC	73	73	S	S
Switchgear					
78	AC	8	8	S	S

5. Condition of Electrical Installation (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>No. Installed</u>	<u>No. Inspected</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
Panelboards					
79	AC	16	16	S	S
80	DC <u>Not applicable</u>				
81	Control Boards	2	2	S	S
Transformers					
82	Power <u>Not applicable</u>				
83	Lighting	6	6	S	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			S	S
86A	Ship Service, Welding and Shore Service Cable ways in wingwall deck.	24	24	S	U

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	Blocking		

6. Condition of Fittings

<u>Item No.</u>	<u>Item</u>		<u>Condition</u>	
			<u>Current</u>	<u>Previous</u>
87	Fixed Blocks		S	S
88	Hauling Blocks		S	S
89	Outriggers		S	S
90	Flying Bridges)		
)		
91	Anchors)		
)		
92	Chain)		
)		
93	Hawsers)		
94	Bollards		S	S
95	Cleats		S	S
96	Chocks		S	S
97	Watertight Doors		S	S
98	Hatches		S	S
99	Air Ports		S	S
100	Manholes and Covers		S	U
101	Stairs		S	S

Not applicable

6. Condition of Fittings (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
102	Ladders	U	S
103	Handrails	S	U
104	Platforms	S	S
105	Gratings	S	S
106	Sidewall Jacking Equipment	Not applicable	
	Pier Moorings		
107	Spuds	S	S
108	Mooring Guides	S	S
109	Alignment between Pier and Sections	S	S
110	Draft Gages	S	S
111	Davits	Not applicable	
112	Fenders	(NOTE: All fender timbers on inboard faces of both wingwalls were replaced in 1963.)	

7. Condition of Utilities

Piping Systems

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
113	Dewatering and Flooding	S	S
	Valves and Valve Operators		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S
117	Flooding Valves	S	S
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable		
124	Lubricating Oil System Not applicable		
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
127	CO ₂ Fixed System Not applicable		
128	Sprinkler System Not applicable		
129	Compressed Air System	S	S
130	Air Vent System	S	U
Heating and Ventilating System			
131	Piping and Ducts)		
)		
132	Ventilation & Exhaust Outlets) Not applicable		
)		
133	Ventilation Fans		
134	Vent Valves	S	S
135	Unit Heaters)		
)		
136	Unit Convectors)		
)		
137	Heating Coils in Ballast Tanks) Not applicable		
)		
138	Range Hoods and Grease Filters)		
)		
	Plumbing System)		
)		
139	Piping and Fittings)		

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
140	Fixtures Not applicable		
	Lighting System		
	Interior		
141	Fixtures	S	S
142	Circuits	S	S
	Exterior		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		
	<u>Communications System</u>		
147	Sound Powered Telephones Not applicable		
148	Dial Telephone System Not applicable		
149	Loud Speaker System	S	S
150	General Alarm System	S	S

7. Condition of Utilities (Cont'd)

Item No.	Item	Current	Condition	Previous
----------	------	---------	-----------	----------

Water Level and Draft Indicator System

Type: Pneumator

151	Previous Inspection and Repair by Manufacturer:	August 1954	S	S
		(date)		

Scheduled Date of Next Inspection by Manufacturer: Unknown
(date)

151A Comparative Water Reading System

Water Level - Indicator Comparative Readings			
Compartment No.	Actual Water Level	Indicator Reading	Difference
1	10' - 0"	10' - 0"	0"
2	9' - 11"	9' - 11"	0"
3	9' - 10"	9' - 11"	1"
4	10' - 0"	10' - 0"	0"
5	10' - 1"	10' - 0"	1"
6	9' - 11"	9' - 11"	0"
7	10' - 1"	10' - 2"	1"
8	9' - 9"	10' - 0"	1"
9	10' - 0"	10' - 0"	0"
10	9' - 11"	9' - 11"	0"
11	10' - 1"	10' - 0"	1"
12	9' - 11"	9' - 10"	1"
13	10' - 1"	10' - 0"	1"

7. Condition of Utilities (Cont'd)

<u>Compartment No.</u>	<u>Actual Water Level</u>	<u>Indicator Reading</u>	<u>Difference</u>
14	10' - 1"	10' - 0"	1"
15	10' - 0"	10' - 0"	0"
16	10' - 1"	10' - 0"	1"

	<u>Condition</u>
<u>Current</u>	<u>Previous</u>

Miscellaneous Steel Tanks

152	Fresh Water Supply)	
)	
152A	Salt Water Tanks)	
)	
153	Hot Water Storage)	
		)	Not applicable
154	Cooling Water Expansion)	
)	
155	Fuel Tanks)	
)	
156	Lube Oil Tanks		

S	S
---	---

8. Condition of Miscellaneous Installations

157	Brows (Not Navy owned)	
158	Galley and Mess Equipment	Not applicable
159	Clinometers	

S	S
---	---

S	S
---	---

8. Condition of Miscellaneous Installation (Cont'd)

Item No.	Item	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Life Saving Equipment		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings	Not applicable	
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	

9. Dry Dock Basin. Soundings taken at the dry dock basin in 21 September 1965 with River Stage at 1' - 8" elevation, are as follows:

Port Side	Forward	49'-6"
Starboard Side	Forward	49'-6"
Port Side	Amidships	51'-0"
Starboard Side	Amidships	50'-0"
Port Side	Aft	49'-6"

9. Dry Dock Basin (Cont'd)

Starboard Side	Aft	49'-6"
----------------	-----	--------

10. Submergence Test. Test was conducted on 26 August 1965. The dock was submerged to 25' - 7" over the keel blocks and held in that position for 30 minutes. The following is a Log of the submergence test:

Flood Valves open -	18" Free board	1350
Stop Flooding -	25'-7" over Keel Blocks	1420
Start Pumps -	25'-7" over Keel Blocks	1455
Stop Pumps -	18" Free Board	1522

The dock emerged without sluggishness. During the submergence no trimming was required to keep the dock level.

11. Careening. The dry dock was self docked and the underwater section of the Hull was inspected at this time.

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

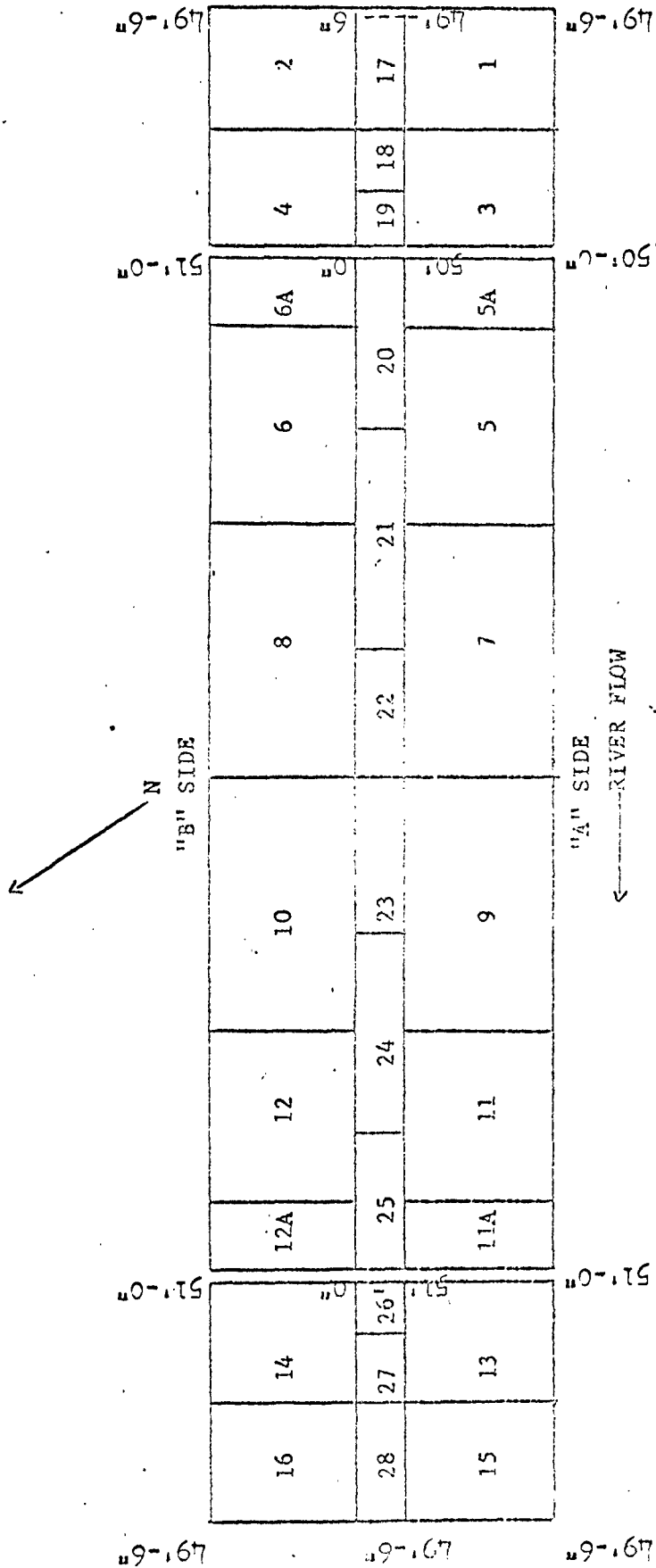
NONE

13. Improvements. The following improvements to the dock are recommended: NONE

9/21/65.

Soundings under Y.F.D. 69 River gauge 1.84

ATTACHMENT NO. 1



ATTACHMENT NO. 2

N

"B" SIDE

16			14			12A	12			10			8			6			6A	4		2	
28	27	26	25			24			23			22		21		20			19	18	17		
15			13			11A	11			9			7			5			5A	3		1	

"A" SIDE

← RIVER FLOW

KEY PLAN SHOWING COMPARTMENT DESIGNATIONS FOR YFD-69

PART III. Description of Deficiencies and Recommended Action

<u>Item No.</u>	<u>Description of Deficiencies</u>	<u>Recommendations and Action To Be Taken</u>	<u>Estimated Cost</u>
6	Wing passage on "B" side, offshore end, has heavy build up of rust and scale.	Remove rust, clean, prime and paint.	\$500.00
33	Boyancy Chamber, Compartment #20, has water in it. Rusting is evident behind bulkhead stiffeners and along trusses.	Remove rust and apply new preservative to all rusted areas.	\$800.00
102	Ladder alongside wing passage, "B" side, outboard, is bent.	Repair bent ladder and re-weld clips as required.	\$150.00

PART IV. DEFICIENCIES NOTED IN PREVIOUS REPORTS

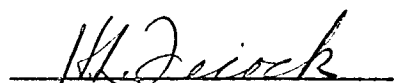
<u>Item No.</u>	<u>Corrected</u>	<u>Corrective Action Started</u>	<u>Comments</u>
2	Yes	Yes	
59	Yes	Yes	
86A	Yes	Yes	
100	Yes	Yes	
103	Yes	Yes	
130	Yes	Yes	
130	Yes	Yes	

PART V. Certification and Signatures


This report is the result of a joint inspection made by representatives of the Industrial Manager, USN, 13th Naval District and representatives of the contractor.



W. L. SETH, Senior Member
INDMAN 13ND



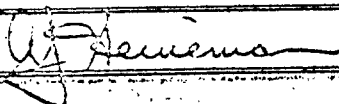
H. L. FEIOCK, Dockmaster
Port of Portland



D. L. YOUNG, Member
INDMAN 13ND

FROM: THE PORT OF PORTLAND						DATE August 30, 1965	
TO: COMMANDING OFFICER, USS INDMAN							
PLACE DOCKED Portland, Oregon		DATE DOCKED 6/7/65		DATE UNDOCKED 8/23/65		POSITION NUMBER THIS DOCKING DIST. S.R.P. TO AFTMOST KEEL BLOCK	
DOCKING AN NUMBER 296141 & 365710		PLAN NUMBERS FOR ZINCS OR CATHODIC PROTECTION				REASON FOR DOCKING Inspection & Painting	
SHAFTS		SP. AFT DIAMETER		DESIGN CLEARANCE		MAXIMUM ALLOWANCE CLEARANCE	
BEARING CLEARANCES WHEN DOCKED		STERN TUBE		INTERMEDIATE STRUT		MAIN STRUT	
		FORWARD AFT		FORWARD AFT		FORWARD AFT	
NO. 1 OR STD. OUTGO.							
NO. 2 OR STD. INGO.							
NO. 3 OR PORT INGO.							
NO. 4 OR PORT OUTGO.							
BEARING MATERIAL						MATERIAL	
						ING'D _____ OUT'D _____	
CONDITION OF SHAFING AND MATERIAL						ING'D PLAN NO. AND REVISION	
						OUT'D _____	
RUDDER AND DIVING PLANES POST DIAMETER		PORT		STARBOARD		CENTER LINE	
		IN.		IN.		IN.	
BEARING CLEARANCE		PORT		STARBOARD		CENTER LINE	
		IN.		IN.		IN.	
SONAR EXISTING AT UNDOCKING				SERIAL		WORK DONE—INCLUDE PRINTING	
DOCK TYPE							
COATING APPLICATIONS ACCOMPLISHED THIS DOCKING							
BOTTOM		One coat #117, two coats #119, two coats #119D, two coats #129					
BOOT TOPPING		No painting above 17'-8" draft. Same coatings except final two coats grey between 16'-8" and 17'-8".					
RUDDERS AND STRUTS							
SHAFTING							
TANKS		Touchup of ballast tanks using Lagotex #599					
REMARKS: Docked center section 6/7/65 Undocked center section 6/18/65 Docked end sections 6/22/65 Strike 7/2/65 to 8/22/65 Undocked end sections 8/23/65 Dock assembled and in service 8/26/65							

SIGNATURE



NAME, CLASS AND NUMBER OF SHIP

YFD-69 Floating Drydock

DOCKING REPORT

ENCLOSURE (2)

PSY500006772

ASSISTANT INDUSTRIAL MANAGER, USN

2400 - 11TH AVENUE S. W.
SEATTLE 4, WASHINGTON

IN REPLY REFER TO:

NObs-4315
Ser 2460-300
13 March 1963


From: Assistant Industrial Manager, USN, Seattle
To: The Port of Portland, Portland, Oregon

Subj: Contract NObs-4315, The Port of Portland, Portland, Oregon; Annual
Report of Material Inspection of Floating Drydock YFD-69

Encl: (1) Annual Report of Material Inspection of Floating Drydock YFD-69 (2 cys)
(2) Diver's Report of Underwater Portion of YFD-69

1. Correction of deficiencies as noted in enclosure (1) is the Contractor's responsibility and upon completion thereof, inspection will be accomplished by this activity.

2. In the event there are any questions with respect to the noted deficiencies and necessary corrections required, please advise this office accordingly.


B. SHIRLEY
Captain, USN

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PSY500006773

ANNUAL INSPECTION SUMMARY

FLOATING DRY DOCK

YFD-69
(Number)

NObs-4315
(Activity of NOy Lease)

REPORT BUDOCKS 11014-1
for the period ending

December 1962
(Month and Year)

ENCLOSURE (1)

PSY500006774

PART I. General.

1. The YFD-69 is a 528-foot overhaul length, 90-foot beam, 14,000-ton displacement at 18-inch freeboard steel, floating dry dock. The maximum lifting capacity is 17,500 long tons at zero pontoon freeboard. The dry dock was constructed by the Kaiser Company, Inc., in 1945 at Vancouver, Washington.
2. The dry dock is leased to the Port of Portland, Portland, Oregon, under Contract NObs-4315. The dry dock is moored at the contractor's plant and has been in service at that plant since 1 December 1949. The dry dock is presently moored to a concrete pier by means of three steel spuds which are mounted on the steel hull of the dry dock and three guides mounted on the pier.
3. The dry dock was last self-docked completely in August 1954. The outboard end section was dry docked in November 1959, and was found to be in very good condition. Based on the condition of the outboard end section, it was established that docking of the center and inboard sections would not be required at that time.
4. The previous material inspection of the YFD-69 was made in December 1961.
5. The board appointed to inspect the dry dock consisted of Mr. W. L. Seth, Senior Member, Office of the Assistant Industrial Manager, USN, Seattle, Washington; Mr. W. E. Gaspar, Northwest Division, Bureau of Yards and Docks, and Mr. H. L. Feioik of the Port of Portland. The inspection of the dry dock was conducted during the period 10 December to 14 December 1962.

6. The following components were placed in preservation without repair at last major overhaul:
7. The following equipment is stored ashore:

<u>Equipment</u>	<u>Condition</u>
(List items)	(Describe)

PART II - Condition

1. The general condition of the floating drydock is graded as follows for the various major components:

<u>Item</u>	<u>Grade</u>
Hull (Part II 3)	Good
Mechanical (Part II 4)	Good
Electrical (Part II 5)	Good
Fittings (Part II 6)	Good
Utilities (Part II 7)	Good
Miscellaneous (Part II 8)	Good
Cleanliness	Excellent
Preservation of equipment not in use (Part I 6)	
Overall Material Condition	

(In grading the above items, use the following items, use the following terms as defined):

<u>Term</u>	<u>Definition</u>
Not applicable	Signifies item is not applicable.
Outstanding	No superior in the type of the knowledge of the inspectors.
Excellent	No vital and few minor deficiencies; so markedly above the required minimum standard as to be among the few best.
Good	Possibly some deficiencies but no critical ones. Above the required minimum standard.
Satisfactory	At the required minimum standard. Capable of performing assigned functions.
Unsatisfactory	Below the required standard in general or in any vital detail.

2. Condition Marks. The material condition of the various items of the floating drydock, shown in paragraphs 3 through 8 following, is marked as follows:

<u>Mark</u>	<u>Definition</u>
S	Condition Satisfactory
U	Condition Unsatisfactory
X	Condition Unknown

3. Condition of Hull

<u>Item No.</u>	<u>Item</u>	<u>Current</u>	<u>Condition</u> <u>Previous</u>
	Exterior		
	Pontoon		
1	Bottom (See Diver's Report, Enclosure (2))		
	Sides		
2	Below water line	S	
3	Water line	S	S
4	Above water line	S	S
5	Deck	S	S
	Wingwalls		
6	Outboard face	S	S
7	Inboard face	S	S
8	Ends	U	S
9	Deck	U	S
	Interior		
10	Compartment No. 1	S	S

3. Condition of Hull, (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
11	Compartment No. 2	S	S
12	" "	S	S
13	" "	S	S
14	" "	U	S
15	" " 5A	S	S
16	" "	U	S
17	" " 6A	S	S
18	" "	S	S
19	" "	S	S
20	" "	S	S
21	" "	S	S
22	" "	U	S
23	" " 11A	S	S
24	" "	U	S
25	" " 12A	S	S
26	" "	S	S
27	" "	S	S

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
28	Compartment No. 15	S	S
29	" " 16	S	S
30	" " 17	S	S
31	" " 18	S	S
32	" " 19	S	S
33	" " 20	S	S
34	" " 21	U	S
35	" " 22	U	S
36	" " 23	S	S
37	" " 24	U	S
38	" " 25	S	S
39	" " 26, 27 & 28	S	S

Ballast

Permanent: Type _____ Amount _____ (Tons)
 Temporary: Type _____ Amount _____ (Tons) Not applicable

Silt: Average depth: 2½ inches (see Item 151A - Part III)
 Bridge Structure

40 Exterior)
) Not applicable
 41 Interior)

4. Condition of Mechanical Installation

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>No.</u> <u>Installed</u>	<u>No.</u> <u>Inspected</u>	<u>Condition</u> <u>Current</u>	<u>Previous</u>
49	Diesel Engines))		
50	Gasoline Engines))		
51	Boiler: Data last inspected:))		
	_____))		
	Date last inspected:))		
	_____))		
	Days idle since last inspection:))		
	_____	)	)	Not applicable	
52	Water Distillation Unit))		
	Refrigeration Units))		
53	Walk-in))		
54	Reach-in))		
55	Air Compressors	1	1	S	S
56	Oil Purifiers	Not applicable			
57	Hydraulic Steering Equipment	Not applicable			
58	Hydraulic Gate Operator	Not applicable			
	Pumps:				
59	Main Dewatering Pumps	8	3	S	S
	NOTE: Pumps Nos. 1, 2, 3, 4, "B" side were inspected. It is recommended that Pump No. 3 on the "B" side be inspected for clearance in 1963. Present clearance between impeller and lower wear ring in base of pump is 3/16".				
60	Fresh Water Pumps	Not applicable.			

3. Condition of Hull (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Crane Runways		
42	Trusses)		
)		
43	Rails)		Not applicable
)		
44	Wood Decking)		
	Connections between sections		
45	Locking Logs)		
)		
46	Joints)		
	)		Not applicable
47	Bridges)		
)		
48	Stern Gate)		

4. Condition of Mechanical Installation (Cont'd)

Item No.	Item	No. <u>Installed</u>	No. <u>Inspected</u>	<u>Condition</u>	
				Current	Previous
61	Pumps				
	Salt Water Pumps				
62	Fuel Oil Pumps				Not applicable
63	Drainage Pumps				Not applicable
64	Vacuum Priming Pumps	4	4	S	S
65	Automatic Grease Pumps	8	8	S	S
	Weight Handling Equipment				
	Cranes				
	Type:				Not applicable
	Maker:				
	Capacity:				
66	Structural)				
)				
67	Electrical)				
)				
68	Mechanical)				Not applicable
)				
69	Safety)				
)				
70	Derricks)				
)				
71	Capstan	8	8	U	S
72	Deck Winches				Not applicable

4. Condition of Mechanical Installation (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>		<u>No.</u>	<u>No.</u>	<u>Condition</u>	
			<u>Installed</u>	<u>Inspected</u>	<u>Current</u>	<u>Previous</u>
73	Anchor Windlass	<u>Not applicable</u>				
74	Elevators	<u>Not applicable</u>				

5. Condition of Electrical Installation

Item No.	Item	No.	No.	Condition	
		Installed	Inspected	Current	Previous
Generators					
75	AC	<u>Not applicable</u>			
76	DC	<u>Not applicable</u>			
Motors					
77	AC	73	35	S	S
Switchgear					
78	AC	8	4	S	S
Panelboards					
79	AC	16	16	S	S
80	DC	<u>Not applicable</u>			
81	Control Boards	2	2	S	S
Transformers					
82	Power	<u>Not applicable</u>			
83	Lighting	6	6	U	S
84	Power Cables	5	5	S	S
85	Power Receptacles	10	10	S	S
86	Junction Boxes			U	S
86A	Power Cable Way into Deck	1	1	S	U

6. Condition of Fittings

<u>Item</u>		<u>Condition</u>	
<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
	Blocking		
87	Fixed Blocks	S	S
88	Hauling Blocks	S	S
89	Outriggers	S	S
90	Flying Bridges)		
)		
91	Anchors)		
	) Not applicable		
92	Chain)		
)		
93	Hawsers)		
)		
94	Bollards	S	S
95	Cleats	S	S
96	Chocks	S	S
97	Watertight Doors	S	S
98	Hatches	S	U
99	Air Ports	S	S
100	Manholes and Covers	S	S
101	Stairs	S	S
102	Ladders	S	S
103	Handrails	U	U

6. Condition of Fittings (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
104	Platforms	S	
105	Gratings	S	
106	Sidewall Jacking Equipment	Not applicable	
	Pier Moorings		
107	Spuds	S	S
108	Mooring Guids	S	S
109	Alignment between Pier and Sections	S	S
110	Draft Gages	S	S
111	Davits	Not applicable	
112	Fenders	U	S

7. Condition of Utilities

Piping Systems

113	Dewatering and Flooding	S	S
	Valves and Valve Operators		
114	Suction Valves	S	S
115	Crossover Valves	S	S
116	Discharge Valves	S	S

7. Condition of Utilities (Cont'd)

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
117	Flooding Valves	S	U
118	Check Valves	S	S
119	Foot Valves	S	S
120	Flood Gates	S	S
121	Sluice Gates	S	S
122	Steam Supply System	S	S
123	Fuel Oil System Not applicable	--	--
124	Lubricating Oil System Not applicable	--	--
125	Fresh Water System	S	S
126	Fire Extinguishing and Flushing System	S	S
127	CO2 Fixed System Not applicable	--	--
128	Sprinkler System Not applicable	--	--
129	Compressed Air System	S	S
130	Air Vent System	U	S
	Heating and Ventilating System		
131	Piping and Ducts)		
)		
132	Ventilation & Exhaust Outlets) Not applicable		
)		
133	Ventilation Fans		

7. Condition of Utilities (Cont'd)

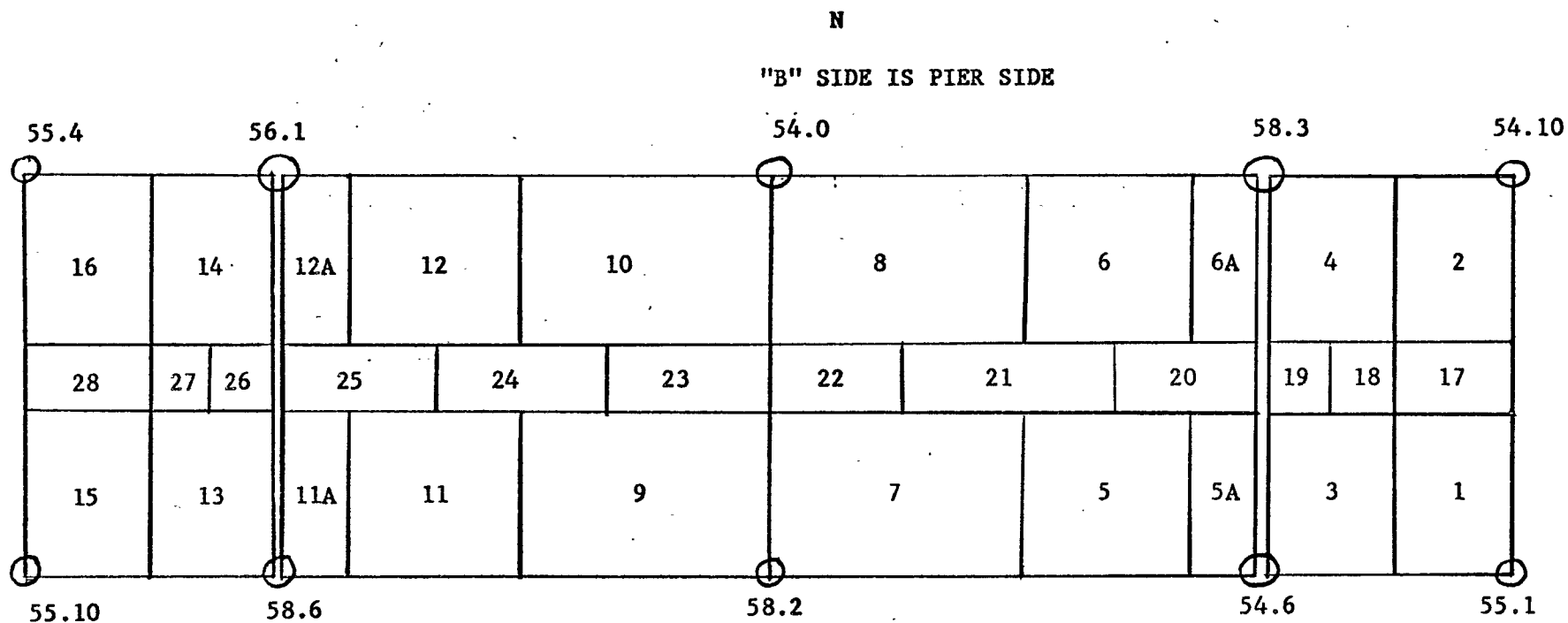
Item		<u>Condition</u>	
<u>No.</u>	<u>Item</u>	<u>Current</u>	<u>Previous</u>
134	Vent Valves)		
)		
135	Unit Heaters)		
)		
136	Unit Convectors)		
)		
137	Heating Coils in Ballast Tanks)		
)		
138	Range Hoods and Grease Filters)		
)		
	Plumbing System)		
)		
139	Piping and Fittings)		
)		
140	Fixtures)		
)		
	Lighting System		
	Interior		
141	Fixtures	U	S
142	Circuits	S	S
	Exterior		
143	Standards	S	S
144	Fixtures	S	S
145	Circuits	S	S
146	Searchlights Not applicable		

7. Condition of Utilities (Cont'd)

<u>Item</u> <u>No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
	Communications System		
147	Sound Powered Telephones	Not applicable	
148	Dial Telephone System	Not applicable	
149	Loud Speaker System	S	S
150	General Alarm System	S	S
	Water Level and Draft Indicator System		
	Type: Pneumatorator		
151	Previous Inspection and Repair by Manufacturer: <u>August 1954</u> (date)	S	S
	Scheduled Date of Next Inspection by Manufacturer: <u>Unknown</u> (date)		
151-A	Comparative Water Reading System	S	S
	Miscellaneous Steel Tanks		
152	Fresh Water Supply)		
152-A	Salt Water Tanks)		
153	Hot Water Storage)	Not applicable	
154	Cooling Water Expansion)		
155	Fuel Tanks)		
156	Lube Oil Tanks	S	S

8. Condition of Miscellaneous Installations

<u>Item No.</u>	<u>Item</u>	<u>Condition</u>	
		<u>Current</u>	<u>Previous</u>
157	Brows (Not Navy owned)	S	S
158	Galley and Mess Equipment	Not applicable	
159	Clinometers	S	S
	Life Saving Equipment		
160	Boats	Not applicable	
161	Life Boats	Not applicable	
162	Life Rings		
163	Vests	Not applicable	
164	Cathodic Protection System	The drydock is operated in fresh water and corrosion is not a serious problem.	



River stage = 6.1 above zero gauge
U. S. Engr. Datum, 14 December 1962

9. Dry Dock Basin Soundings taken at the dry dock basin in 14 Dec 1962 with the river stage at +6.1 elevation, are as follows: (date)

		Elevation Zero Gauge (U.S. Engr datum)	
Port Side	Forward	<u>55.10</u>	<u>49.9</u>
Starboard Side	Forward	<u>55.1</u>	<u>49.0</u>
Port Side	Amidships	<u>54.0</u>	<u>48.9</u>
Starboard Side	Amidships	<u>58.2</u>	<u>52.1</u>
Port Side	Aft	<u>54.10</u>	<u>48.9</u>
Starboard Side	Aft	<u>55.1</u>	<u>49.0</u>

10. Submergence Test

Flood Valves Open -	36" Freeboard	12.40
Stop Flooding	25'3" over bilge blocks	1:22
Start Pumps	25'3" over bilge blocks	1:58
Stop Pumps	12" Freeboard	2:15

11. Careening. The dry dock was careened at this time and the underwater section of the Hull was inspected by a qualified diver. (See diver's report attached, Encl (2)).

12. Maintenance and Project List. The following changes and additions to the dock's maintenance project and work list are recommended:

13. Improvements. The following improvements to the dock are recommended:

Improvement

Install doors in wingwall to pump chamber for service and repair to pumps and valves.